THE LANCET.

VOL. II.] LONDON, SATURDAY, APRIL 6, 1839. [1838-39.

CLINICAL LECTURES,

DELIVERED AT UNIVERSITY COLLEGE HOSPITAL,

BY

ROBERT CARSWELL, M.D.,

Professor of Pathological Anatomy in University College, London; and of Clinical Medicine in University College Hospital.

CANCER OF THE UTERUS.

GENTLEMEN:—It was my intention, on Thursday last, to have laid before you the history of two fatal cases of carcinoma. Our time, however, was occupied with one only of these cases, viz., that of Margaret Melloy, and which was one of considerable interest, not only on account of the extent to which the disease existed in the serous membranes, but also owing to the form which it assumed in the uterus, to both of which circumstances I shall again beg your attention to-day, after having laid before you the history of the second case, viz., that of Sophia Graham.

Sophia Graham, 36 years of age, was admitted the 23rd October, 1838, and died the 15th of this month. She was a married woman, of regular habits, and the mother of three children, the last of which was born four years before. She had a miscarriage within the last two years, at the fourth month, from which she suffered severely, and had afterwards a continual discharge of a clear glairy fluid. About four months previous to her admission, she experienced a dull pain in the lower part of the belly, whilst in the act of reaching upwards, and next morning, as she was getting out of bed, had a profuse discharge of blood from the vagina. This was followed by an increase of the first, or glairy discharge, and which now became fœtid. The hæmorrhage occurred subsequently at different periods, and the patient gradually lost health and strength. Four days after her admission, an examination per vaginam was made, when the cervix uteri was found much ulcerated and hardened, and a profuse fœtid discharge escaped from the os uteri.

Before mentioning the treatment employed in this case, and the symptoms which it presented during its future progress, I may remark that the state of the affected organ, as observed by examination, was such as to exclude the hope of more than a palliation of the most distressing of the symptoms, arising during the progress of the ulceration and inflammatory softening which accompany the last stage of carcinoma.

The disease, indeed, had arrived at this destructive stage before the admission of the patient into the hospital. How long before this period is not certain, although, from the frequent hæmorrhage, which was also very considerable, and which occurred two months before, it is extremely probable that ulceration and softening, the chief sources of hæmorrhage in carcinoma, had then commenced.

The further extension of the disease, after the admission of the patient, was, from time to time, marked by hæmorrhage, varying in degree, sometimes in clots, from the blood being retained some time in the vagina before being passed, and presented once or twice, intermixed with the discharge, portions of the carcinomatous tissue in the state of sloughs. As a usual consequence of this stage, also, of the disease, its progress was accompanied by more frequent and more severe pain; this symptom, however, being occasionally mitigated after the occurrence of the hæmorrhage, in consequence, no doubt, of its lessening the tension of the parts, and arresting, for a time, the inflammatory excitement on which it depends.

To procure rest by opiates, by relieving pain; to remove the discomfort arising in the fœtor of the discharge, as well as to diminish the quantity of the latter, and support the strength of the patient, were the indications which alone could be attempted to be fulfilled in this case. But partial relief was procured by the use of opium. The fœtor of the discharge was subdued by injections of the nitrate of silver at one time, and of the chloride of soda at another.

The disease continued to proceed towards its fatal termination uninterruptedly, without any complication, except near its close, when considerable diarrhœa supervened, an

occurrence frequently observed towards the close of such affections, and which hastened the period of dissolution, from the state of great prostration to which the patient was reduced at this time. As in all cases of carcinoma uteri, emaciation had progressively increased; the skin had shrunk and become pallid; the countenance sallow and expressive of suffering, having altogether that cachectic aspect so peculiarly characteristic of the last stage of carcinomatous disease, although it was not in this case so marked as it frequently is, and which was, perhaps, partly owing to the hæmorrhage having blanched considerably the cutaneous tissue.

The post-mortem examination of the body exhibited all the organs, except the uterus, in a state of perfect integrity. They were, of course, as indicated by the external appearance of the body, greatly deficient in the usual quantity of blood; that is to say, a state of anemia was conspicuous in all of them. For example, the liver did not present that apparent distinction of its substance into red and yellow, seen in most healthy livers; the cortical and tubular portions of the kidneys were hardly distinguishable from each other by a difference of colour; and the mucous membrane of the digestive organs, but particularly of the stomach, was as pale as if it had been macerated for many days.

Before pointing out to you the morbid appearances seen in the uterus, I shall make a few remarks on some of the more important circumstances which have been observed in these two cases of carcinoma, and which appear to me not irrelevant to the object of clinical instruction.

And, first, with regard to the previous history and origin or causes of the disease in these two cases. On this head I have very little to state. However, let me remind you, that among the most important of the studies of the physician is that of the *causes* of diseases, or the study of those agencies, whether mental or corporeal; whether situated *within* or *without* the body; whether as hereditary or acquired conditions, under the influence of which disease, such as that which we have witnessed in these two cases, originates.

I may almost venture to say that it is now no longer a disputed doctrine, that all special organic products, differing in their physical and physiological characters from those which enter into the composition of the healthy body, can exist only under the modifying influence of a special predisposing cause; that a peculiar, but nevertheless as yet unknown, condition of the body, of some one or more of its functions, constituting what is called *diathesis*, must exist, and precede the formation of all new or heterologous products; and that each product thus produced is derivable only from its own diathesis, as, for example, the heterologous product called *tubercle*, from the tubercular diathesis; the carcinomatous from the carcinomatous diathesis; and, indeed, the same may be said of the special product of the most frequent of all diseases, viz., inflammation, pus being the product of that pathological state, and of no other. And here I may observe, that the very frequency of this disease, inflammation, either as preceding, accompanying, or following, most other organic morbid states, was, for a time, and under the prevalence of the so-called physiological doctrines of Broussais, regarded as the cause of carcinoma; that this disease was, in fact, the result of long-continued chronic inflammation, more especially of the glandular and lymphatic elements of organs. It would not only be out of place, but now useless, to combat this hypothesis, for even the student in medicine has daily opportunities of obtaining the most conclusive evidence against such an origin of the disease; inflammation, in all its forms, occurring in numberless cases, without being followed by any other than its usual, or, as they may be called, its natural consequences, such as suppuration, softening, induration, ulceration, mortification.

As one of the most striking illustrations of the existence of the diathesis to which I have alluded, and of its influence in the production of carcinoma, under the accidental occurrence of inflammation, I may recal to your recollection the case of fungus hæmatodes of the shoulder, of which I showed you a delineation at my last lecture. When the disease of the shoulder had arrived at the last stage, the patient had an attack of pleuritis, followed by effusion, in consequence of exposure of the chest, during the frequent application of cold lotions to the former.

After death there was not found, as was anticipated, the usual or natural products of inflammation, viz., pus and false membranes. Instead of these, the pleuræ were studded with carcinomatous tumours of various sizes, and the greater part of the lung occupied with a mass of the same disease. And, mark you, the disease was found nowhere else; the opposite side of the chest presented no trace of it, nor any other organ of the body; it existed only where the inflammation had occurred under the influence of the most frequent of its exciting causes, viz., cold, and by the intermediate agency of which it may be said to have obtained a visible existence.

In the histories of the two cases before us, we seek in vain for the causes in which the carcinomatous diathesis originated. Both patients are said to have lived regularly and temperately, and no hereditary condition of body appears to have contributed to its production; and in this respect they are not remarkable, for carcinoma, in

some one of its forms, occurs in persons of the most regular and temperate habits, at all periods of life, and apparently living under circumstances the most favourable to the maintenance of health; and, on the contrary, presents no trace of its ravages in thousands who have been subjected to every degree and variety of privation and hardship. Under such circumstances it is not surprising that our knowledge respecting the causes, and the state of the constitution in which carcinoma originates, is so imperfect and unsatisfactory; that its nature should be so little understood, and the means of treatment seldom capable of doing more than arrest its progress for a time, or mitigate some of the more distressing of its consequences.

I shall make a few observations on the *form* which the carcinoma assumed in these two cases; on the *pain* and *hæmorrhage* which occurred, and the *cause* of death in each respectively.

As to the *form* of the disease nothing could be more dissimilar. In the first case it was that of tumours of various sizes, chiefly composed of smaller ones, and of varieties of what I have called the cephalomatous species, viz., the lardaceous and mammary, and, in two or three instances, of the cerebriform variety. In the second case there were only slight traces of a scirrhous substance left to indicate the nature of the disease, the rest having been removed by the process of softening, ulceration, and sloughing, so that the disease in this case consisted of little more than a large ragged excavation, occupying the upper third of the vagina, a portion of the cervix uteri, and extending through the vagina, and upwards beneath the body of the uterus, where it had nearly penetrated into the peritoneal cavity. To one unacquainted with the various forms which carcinoma presents during its progress no similarity of nature could have been detected in these two cases. The difference in the parts affected in the two cases would also have very much obscured his anatomical diagnosis, independently of the great difference in the physical characters of the disease in each. Indeed, in the second case, it was as much from the *seat*, *extent*, and progress of the disease, as from its special physical characters, that its nature was recognised.

The cervix uteri and upper portion of the vagina are, as it were, the seat of election of carcinoma in the female organs of generation. Its occurrence elsewhere than at the neck of the uterus is a rare exception to this rule, and, singularly enough, we have an exception of this kind in the first case, in which the fundus and body of the uterus, and not the neck or upper part of the vagina, are the seats of the disease. In this case you will recollect that the greater part of those portions of the uterus named was composed of the lardaceous and mammary forms of carcinoma, and also the right ovary. The destructive process of softening and sloughing, which had gone so far in the second case, had only commenced, in the first, in the large tumour connected with the uterus, and in one of the polypiform tumours which projected into the cavity of this organ. It was over this tumour that the ointment of the iodide of potassium was rubbed, the stimulating effect of which appeared to have contributed towards a diminution of bulk in the tumour, and probably, also, had hastened the softening process, which was found to have commenced in it, particularly where it was connected with the uterus, and from which point also the polypus, which was in part destroyed by softening and sloughing, took its origin. The difference in the *extent* of the disease was as marked as the difference in its seat in these two cases. In the second case it was confined to a limited portion of the organs of generation, no other organ of the body presenting any trace of it. In the first case it existed in the uterus, right ovary, iliac, and lumbar glands, over a great extent of the peritoneum and pleura. The greatest mass of the disease was connected with the body of the uterus, but we have no certain data on which to found an opinion whether it commenced in this organ, or simultaneously in the other tissues already named. It is, however, obvious, that the disease did not spread either by continuity or contiguity of tissue in this case, but was developed simultaneously or successively under the influence of the same causes, whatever these may have been, in the several parts in which it was found.

The occurrence of the disease under these circumstances may likewise be mentioned as characteristic of, though not peculiar to, carcinoma. Numerous, indeed, are the instances of the disease existing in a great many organs in the same individual; and this important fact should always be borne in mind when external parts of the body are affected, and a most careful examination instituted before having recourse to the hazardous experiment of an operation.

So far, then, for the differences in the form, extent, and seat of the disease in these two cases. With regard to the pain, as it occurred in these cases, and as a symptom of carcinoma, it was more marked, severe, and constant in the second than in the first. It is always present in the last stage of carcinoma of the uterus, and very often at the commencement, and during the progress of the disease. On the contrary, it may be entirely absent, or extremely slight, in carcinoma of the serous membrane, in so far as it depends on the disease itself, and is, perhaps, never acute, unless when inflammation occurs consecutively in these membranes. As to the existence of pain, and the pecu-

liarity of its character in carcinoma, as distinguishing it from that which occurs in every other disease, the most erroneous opinions have been and still are entertained by some. It is true, as I have said, that we have pain, more or less severe, acute, or lancinating, in carcinoma of the uterus, as happened in both of our cases; and the same may be said of pain, as accompanying the disease in the breast, testes, and some other organs; but to what an extent does the disease proceed, in many instances, without pain ever having occurred, or only towards the termination of the disease, and then only as a complication! Such is the case in carcinoma of the liver, of the lungs, of the spleen, the lymphatic glands, stomach, &c. In all these cases the occurrence of pain is, or may be, the consequence of the supervention of inflammation of the affected organ.

Hæmorrhage, as a consequence of the disease, occurred only in the second case. Occurring in carcinoma it always announces that the stage of softening or ulceration has arrived, and may proceed from one of two sources,—either from the vessels of the carcinomatous tissue, or from those of the affected organ, which have been laid open by one or other of those morbid states; and in our case it appears to have come from both; from the first source at the commencement, and from the second at a later stage of the disease. But, although I have already given it as my opinion that the hæmorrhage which occurred in our patient, even before she was admitted into the hospital, was derived from these sources, and indicated an advanced stage of the disease, as, indeed, was proved by the state of the parts on her admission, we must not conclude that such is always the source of the sanguineous discharge which accompanies this disease of the uterus. The menstrual discharge is almost always increased in quantity, altered in quality, and irregular in its periods, at the commencement of carcinoma, and when it accompanies an enlarged and indurated cervix, and particularly if the enlargement present a lobulated or cauliflower arrangement, ought to excite the strongest suspicions, and calls for the most efficacious treatment which experience or our knowledge of the disease, of which it is then but a symptom, can command.

It is not unworthy of remark, that in the first case, in which hæmorrhage did not occur, the disease occupied the body of the uterus, and projected into its cavity in the form of elongated tumours, or polypi; and that, although there were softening and sloughing of one of these tumours, yet there is no mention made of the discharge having been sanguineous; but that, instead of this, there was an abundant fœtid discharge seen to issue from the os uteri. The absence of the sanguineous discharge was, in all probability, owing to the very slight vascularity of the cancerous tissue in this case, and to the almost entire conversion of the substance of the uterus into this tissue; otherwise the presence of the polypiform tumour might have occasioned frequent hæmorrhage, complicated the phenomena of the disease, and hastened the termination.

That this opinion is more than probable, is borne out by many facts which have fallen under my own observation. Thus, I have seen many cases of polypus in all other respects in a healthy uterus, give rise, for a long period, to frequent and severe attacks of hæmorrhage, reducing the patients to a state of extreme debility, in fact endangering life, and in a short period after the removal of the polypus recover their wonted colour and strength, and have no further return of the hæmorrhage. And, in contradistinction to the case of our patient, in which there was no hæmorrhage, I may observe, that although there was the same exciting cause in this case as in those cases to which I have just alluded, viz., a foreign body acting as a stimulus to the surface of the uterus, the effect was thus modified in each respectively, owing to the circumstances which I have mentioned, viz., a healthy uterus in the latter, with its vascular apparatus excited, and probably more fully developed; and an unhealthy uterus in the former, with its entire substance converted into a less vascular tissue requiring the chief supply of blood for its own abnormal growth. In the cases of hæmorrhage to which I have alluded, from the presence of polypi, there was no doubt that the blood came from the surface of the uterus, and not from the polypi themselves, for I have often found these polypi possessed of very few blood-vessels, consisting chiefly of fibrous tissue, and when removed, even by excision, were not followed by hæmorrhage, or at most by a slight sanguineous discharge, the hæmorrhage to which they had given rise from the surface of the uterus, ceasing to return.

I have only one other point on which I shall detain you in the history of these two cases, viz., the immediate cause of death. From what I have already said it is obvious that bronchitis was the disease which hurried on, if it was not the immediate cause of, the dissolution of the subject of the first case. In the second case death was the result of the combined influence of the constitutional disease and its local effects, a deteriorated condition of nutrition in general; of long-continued suffering, mental despondency, and the debilitating effects of repeated hæmorrhage, which, in some cases, suddenly terminates the sufferings induced by a frequentl lingering but fatal and loathsome disease

CLINICAL OBSERVATIONS

DELIVERED AT

ST. GEORGE'S HOSPITAL,

BY

SIR B. C. BRODIE,

ON DISEASES OF THE TESTIS.

GENTLEMEN:—In these observations I shall abandon the usual method observed in clinical discourses, and I do this because the diseases of the testis occupy a very important position in the catalogue of those complaints which we are called upon to treat according to the rules of our art, and because they are seldom treated properly of in books. The first of these which I shall speak to you about is

HYDROCELE.

A hydrocele is a bag of water not contained in or connected with the scrotum but with the testicle. The most common form in which this disease is met with is in that of hydrocele of the tunica vaginalis. There is another form of the disease in which the fluid is contained in a separate cavity, and it has, from this cause, been termed "encysted;" and this latter variety has been subdivided into encysted hydrocele of the testicle, epididymis, and spermatic chord. The tunica vaginalis secretes a fluid or vapour, as do other membranes. It is like the peritoneum in structure, and was, originally, part of it. Sometimes this fluid is too great in quantity, and the absorbents are unable to carry it off. When first it collects in the tunica vaginalis it is small in quantity, and gradually increases until a true hydrocele of the tunica vaginalis is formed; and this is the course which this disease runs in common cases. If the quantity of fluid secreted be very great the tunica vaginalis becomes thickened from the pressure of the fluid upon it, and it is its external surface which takes on this thickening most; the external layer of cellular membrane becomes laminated like the sac of an old hernia. The fibres of the cremaster muscle, having a greater weight than usual to support, increase also in size and bulk. Sometimes the inner membrane of the tunica vaginalis becomes thickened from inflammation, and presents a honeycombed appearance, formed by a layer of effused lymph.

Sometimes the hydrocele is complicated with disease of the testis, which serves by its irritation to keep up the original disease, as a tumour in the abdomen may keep up any abnormal secretion of the peritoneum, or a medullary tumour of the lung may produce hydrothorax.

Hydrocele may occur at any age. It may be congenital, but of this there are two kinds,—occurring either before the upper opening between the tunica vaginalis and peritoneum is closed, or afterwards. If under the former circumstances, there then remains a pervious opening between the cavity of the tunica vaginalis and peritoneum. If the patient be in the horizontal position the fluid ascends up into the peritoneum; if he be upright the fluid gravitates into the tunica vaginalis. If you press on the tumour it will gradually recede under your hand, and not on a sudden as a hernia does. The opening between the two cavities is only sufficient to allow a probe to pass.

Hydrocele occurs in boys under the age of puberty, and in men after that age; sometimes it will gradually go on increasing, and then stop, and sometimes continue uninterruptedly. It is rare that hydrocele attains an unusual degree of magnitude, because, before it can do this, the fluid is drawn off. In cases, however, where, from some cause or other, this has not been done, the tumour may extend as low down as the knees. A hydrocele gives no pain, and a patient may be unconscious of its presence for a long time, until its bulk proves an inconvenience. If a hydrocele become large it will draw the skin over the penis, and completely hide it, and show its bulk through the patient's small-clothes. A blow on a large hydrocele will rupture it, and the fluid will escape into the cellular texture of the scrotum, but no inconvenience will result, and if punctured the fluid will escape. I knew of a case of this kind in which, after the fluid had been drawn off and absorbed, it collected again to as great an amount as before. A natural cure does sometimes occur in these cases. One of the chaplains of this hospital had a large hydrocele, and he was recommended to have the tumour punctured and the fluid drawn off, but he did not like the operation. In the course of two or three years the fluid entirely disappeared. I have occasionally met with cases of the kind. How is this natural cure effected? I shall say more on this presently, but with regard to the case of the chaplain, I may here observe that he was an old man, and the fluid of the hydrocele was, doubtless, very thick and turbid, and irritating to the lining membrane of the tunic, which kept up some slight degree of inflammation, sufficient to promote the absorption of the fluid. I knew, also, of the case of a gentleman, advanced in years, who had the fluid drawn off from a hydrocele, and the subsequent inflammation cured the disease.

Treatment of Hydrocele.—Hydrocele may be treated in two ways. The palliative or temporary method is one of these. You puncture the tumour with a small trocar, and draw off the water through a canula, but in three, six, or twelve months it will collect again. In the majority of cases, however, it is highly desirable to effect a

permanent cure. Where it occurs in children a compress of lint dipped in a lotion composed of one ounce of muriate of ammonia, to four ounces of water, and applied constantly to the part, will frequently effect a cure in nine cases out of ten, while the tenth case may require something more. The other method of curing hydrocele is the permanent one, as it is termed. After the fluid is drawn off in the manner I have stated, the tunica vaginalis is injected with a solution of alum, or zinc, or port-wine and water,—the latter I generally use, and it is the one which I prefer. It is better in these cases always to use the same fluid for injection, as you thereby are better able to judge of its effects. The injection of the tunica vaginalis distends it, but not to so great a degree as before. If it should escape into the cellular membrane of the scrotum that will slough away. You should let the injection remain in for six or eight minutes, according to the pain which it gives the patient. The effect of the injection, at first, is to cause some slight degree of sickness from the fluid pressing on the spermatic chord, but this soon goes off; this is succeeded by some pain in the loins, when you should draw the injected fluid off. Send the patient to bed and keep him there, or you will have inflammation come on, from which, however, I have never known any bad consequences result; there is, however, in these cases generally more swelling than you want, which takes some time before it is absorbed. The effect of the operation which I have described to you is to produce inflammation of the lining membrane of the tunica vaginalis, and some swelling, as the result of this, generally occurs, but this soon subsides and is absorbed, and then the patient is cured. You should inform the patient of what these consequences after the operation are likely to be; sometimes they will not subside under a period of two months. I have seldom known this operation to fail above once in twenty-five times. Now, how is the cure of hydrocele under this treatment effected? Sometimes the opposite sides of the tunica vaginalis are glued together by inflammatory adhesion; the cavity becomes thus obliterated, and the cure thereby effected. Sometimes the adhesion of the opposite sides of the tunic is only partial, and sometimes there is none whatever, and yet the disease may be cured. I suppose that in these cases the subsequent inflammation produces an altered action of the secreting vessels. The cure of hydrocele by these means is generally permanent. Sometimes, however, it will return after a time. The late Sir E. Home had a case in which the disease returned after a period of seventeen years.

The degree of inflammation following the injection is not always in a direct ratio to the certainty of cure, for a very small amount of the former is quite sufficient to ensure the certainty of the latter. (Sir B. C. Brodie related several cases in support of this statement.) The inflammation following the injection is so severe as to go on to suppuration, and the formation of abscesses, but I have only known it to go to this extent in West Indian constitutions;—with them I have frequently seen it occur, and they are very subject to hydrocele. In one of these, in which I operated, the fluid was kept in but a very small time, but the patient was much debilitated at the time, and suffered some severe constitutional disturbance after it; severe inflammation came on, and matter formed, when I laid open the tunica vaginalis, and let the matter out, and the patient was soon cured afterwards.

There is no other operation for the cure of hydrocele to be compared to the one I have just described. Before the operation by injection was understood, recourse used to be had to castration to cure it. Mr. Pott used to recommend a seton to be passed through the hydrocele. I have performed this operation once, and I found it answer; but I think it is one which is liable to failure. Another method of curing these cases is to rub the part with caustic potash, and to make a slough through the scrotum into the tunica vaginalis, when the water of course flows out. The tunica vaginalis contracts, and the slight inflammation which follows is frequently sufficient to perform the cure. It is, however, a very tedious and painful method to the patient, and is not to be compared to the one of injection. These methods, as they are not at present in general use, we may well suppose were not invariably successful when they were tried.

Another operation for the cure of this disease is by incision. The tunica vaginalis is laid open, and the inside dressed with flour, or lint, or some other foreign body, which causes the lining membrane to granulate, and thus performs a complete cure. I have often performed this operation in cases where I have found the operation by injection to fail, and it is only, indeed, under such failure that it ought to be attempted; it is a very severe operation, causing much local inflammation, not only in the tunica vaginalis, but also in the cellular membrane of the scrotum; the pulse becomes quick and strong; the skin hot, and the head and face flushed and painful to an extent requiring immediate venesection. When this operation was in the habit of being frequently performed, it very often proved fatal.

Diagnosis of Hydrocele.—I omitted, in the beginning of these observations, to tell you how to diagnosticate hydrocele from other diseases. The tumour of a hydrocele is easily distinguished; it is, like the tunica vaginalis which contains it, pyramidal in shape. Sometimes it is oval from adhe-

sions at its upper part; sometimes it is of an hour-glass shape, the upper and lower portions of which are sometimes connected together, and sometimes not. A hydrocele may be distinguished from a hernia by the latter being first detected in the groin, and descending thence downwards; you feel a space between it and the abdomen, and the spermatic chord lies to the inside of the tumour. Hydrocele may be distinguished from varicocele by the sensation given to the fingers on manipulating it. The surface of a hydrocele is unform, whilst that of a varicocele is irregular from the elevated surface of dilated veins, and you can press away all the fluid, and it will disappear if the patient lie down, which is not the case with hydrocele, unless it be congenital.

Hydrocele may be confounded with disease of the testicle; it may be distinguished from inflammation of that organ by the absence of pain. But in cases where there is any morbid alteration of structure in the testicle, how are you to distinguish it from hydrocele? Fungus hæmatodes of the testicle is soft and elastic, and it is sometimes very difficult to distinguish between the two; indeed I have known many misled in endeavouring to do so. But the hydrocele presents an uniform surface to the touch; whereas in morbid alterations of the testicular structure there is a rough surface felt by the hand on making a manual examination; in hydrocele you feel the fluid everywhere but behind; in morbidly altered structures you feel an alternate series of hard and soft textures. I have heard it said that some surgeons are ashamed to examine a hydrocele by the reflected light of a candle; for my own part I must say that I am not ashamed to do so, as I consider that it is a very important thing to ascertain the precise situation of the testicle in these cases. There is generally some little adhesion at the posterior part; sometimes, however, it is at the upper and fore part; but by using the light of a candle in the way I mention, you are enabled to detect, precisely, where the point of adhesion is.

But I find that I must retrograde a little, for I have something more to say to you on the subject of congenital hydrocele, in which it is difficult to say whether the fluid is originally secreted in the tunica vaginalis or the abdomen; it may be secreted in either cavity, but wherever it may be it would gravitate into the tunica vaginalis. You need not, however, trouble yourself much as to where the fluid in these cases is originally secreted; but when the child is old enough, let him wear a truss until the communication between the two cavities becomes obliterated. The truss will not actually cure the hydrocele, but it will prevent the occurrence of a hernia, or even if a hernia at all exist it will prevent its further descent; the mouth of the sac will be obliterated, and it will be converted into a common hydrocele. Hydrocele in children never requires an operation, but if a truss be not worn the intestine will descend. A method of cure has been proposed by Dessault. He allowed the child to walk about and take exercise until the hydrocele became of a sufficient size. An assistant made pressure on the groin; the fluid was drawn off, and the hydrocele injected in the common manner. Great caution was necessary on the part of the assistant to prevent the injection passing into the abdomen, which, were it to occur, would have caused some peritoneal inflammation. I need not say more on this operation than that it is unnecessary and uncalled for, and moreover might not succeed, as the injection might not produce sufficient inflammation to procure adhesion. In those cases which commence with inflammation, where the tunics are thickened and the testis feels diseased (which may be distinguished from the ridgy thickening of the tunica vaginalis by the epididymis being confounded with the testis), in such cases as these the operation is not advisable, although the mere thickening of the parts is not an objection. In some cases a loose cartilage may be the cause of disease, by keeping up the secretion like the same body in an articulating cavity, which keeps up a morbid secretion of synovia. It may be cut out with a scalpel or a lancet. The presence of a cartilage in the tunica vaginalis may also give rise to the pain which is sometimes felt in these cases. Encysted hydrocele differs from hydrocele of the tunica vaginalis, and may exist independent of it. It consists of a membranous cyst, generally loosely connected to the neighbouring parts, containing a watery fluid, very similar to that of the hydrocele of the tunica vaginalis, as well as to those of other tumours of a similar character, which arise sometimes in the necks of children, or in the groin of some females. Hydrocele of the spermatic chord has a thin cyst, containing a watery fluid, which, when small, is moveable, but when large is not so.

The encysted hydrocele of the testis is remarkable for its situation; it lies between the inner membrane of the tunica vaginalis and the tunica albuginea, which, you know, forms the immediate investment of the testis. These membranes are naturally adherent, but as the hydrocele increases in size it separates the one layer from the other. The cyst is then like serous cysts generally; the fluid contained in it differs from that of the hydrocele of the tunica vaginalis. When you hold a little of it in a spoon over a candle it will not coagulate, but will nearly entirely evaporate, leaving behind a very small portion of animal matter. This kind of fluid is met with in nine cases out of ten. I have known it to be of a yellow serous coagulable nature. The

encysted hydrocele of the chord lies loose on the chord, and when the abdominal ring is large it may be pushed up into the abdomen. Now, you must not mistake this for a hernia, a mistake which I have known to occur more than once; a truss has, of course, been recommended in obedience to this false prognosis, and the patient has been often very much hurt at not being able always to keep the swelling up. Now, you may distinguish the one from the other of these in this manner: you can push the encysted hydrocele down towards the testicle and distinctly feel the chord above. When you push it into the belly you may frequently feel it projecting behind the ring of the external oblique muscle. When the patient coughs no impulse whatever is communicated to the hydrocelic cavity in the same way as it is to a hernia. When a patient lies on his back a hernia will fall backwards into the abdomen. When it is mistaken I think it must be owing to the carelessness of the surgeon. An encysted hydrocele may be perceptible through the scrotum, and frequently gives to the testicle the appearance of being tuberculated, or double. This species of hydrocele gives, sometimes, a great deal of pain to the patient, which may arise from there being some pressure existing between it and the testis, or upon some nerve sufficiently to cause pain.

For a *diagnosis* of this disease take your patient into a dark room, and examine the tumour with a candle, to see whether it is transparent, and, at the same time, take notice of the situation of the testicle. If the encysted hydrocele be small, do not meddle with it, it may continue small for a very long time, even for years, therefore do not interfere with it; if it become very large and inconvenient, you may puncture it. I operated once on a very large hydrocele, and drew off two pints of fluid. The general amount of fluid in these cases is from six to eight ounces. A tumour of this kind may continue of the size of a walnut even in old age. You must bear in mind that the operation of drawing off the water from a hydrocele is not a radical cure, for after it has been drawn off it will again gradually collect, although the patient may be probably free from it for a twelvemonth. You may, however, make a radical cure by injection, and the question may, therefore, present itself,—Should you inject? I have known it done, and not effect a cure. A man had this hydrocele, the fluid was drawn off, and the cyst was injected; it inflamed, but there was no cure, and the hydrocele gradually returned. I know of another case, in which the encysted tumour contained two pints of fluid; it was injected, and, as a consequence, became inflamed; and I have heard that the fluid is again gradually collecting. After injecting a hydrocele of this kind I have sometimes drawn off the fluid effused through inflammation with success; the fluid under such circumstances is generally of a yellow serous nature. But there are two other methods of treatment which may be followed in these cases. The first of these is to lay open the sac from top to bottom, and stuff it with lint, so as to cause suppuration and granulation, by which means the sac becomes obliterated. This is an operation, however, which I should not perform unless it were very urgently called for. The second one is to introduce a seton containing a few threads of silk, so that it may pass easily. In doing this, however, you must be very careful to examine well the precise situation of the testicle before you pass the seton through. The fluid by this means will escape gradually, the cyst collapses, suppuration is excited (the pus finding its way out by the seton), and granulation comes on, which obliterates the cavity and cures the disease. A great deal of constitutional disturbance sometimes follows the performance of this operation, therefore, as I have before said, do not perform it unless you are obliged to do so.

But there are some *inflammatory diseases of the testis* of which I must speak to you, and the first of these will be simple inflammation of the testis. This may show itself in the form of acute inflammation of the glandular structure from a blow or a squeeze. In rheumatic persons it may arise from exposure to cold, and sometimes almost from no cause whatever. It is sometimes caused by gonorrhœa, when it is called hernia humoralis. When existing in this form of combination with another disease, you will frequently find that when the gonorrhœal discharge ceases the inflammation of the testis becomes more severe, as if the disease underwent a species of metastasis from the urethral passage to the gland. There are some surgeons who think that inflammation of the testis more frequently supervenes upon gonorrhœa in those cases where cubebs and injections have been used to cure it; but I doubt this fact very much myself. My own experience leads me to believe that hernia humoralis will as commonly supervene upon gonorrhœa, where these remedies have not been used as where they have. I believe that this state of the testicle most commonly occurs towards the termination of a gonorrhœa. Much bodily exertion will generally inflame the testicle during the progress of a gonorrhœa; the inflammation will sometimes extend along the vas deferens to the testis.

The late Mr. Rose considered that the urethral discharge and the inflamed testis might coexist in full force at one and the same time, but this is a state of things which I should consider very rare. But

from whatever cause a hernia humoralis occurs, the symptoms are the same. The patient has slight pain in the part, which, in the course of a few days, increases, and the testis becomes tender and swollen; the swelling is oval; it commences in the epididymis, and thence extends to the gland, which becomes hard to the touch. The pain now increases, and causes the patient much nausea and sickness, because the glandularstructure of the testicle is contained in the fibrous membrane of the tunica albuginea, which is inelastic, and will not stretch. In slight cases the constitution is not much disturbed, whilst in other cases there supervenes some inflammatory fever, with a white tongue and a hot skin; sometimes the tongue becomes furred and brown, and the symptoms are of a graver character. Sometimes the testicle is afterwards restored to its natural state and size; sometimes a portion of it remains more or less indurated, from the effusion of coagulable lymph, which, in process of time, becomes absorbed; it is effused in the interstices of the glandular structure. Sometimes the inflammation is so severe as to irremediably injure the structure of the organ. Sometimes the inflammation terminates in suppuration, but this is very rare, except where the disease has been neglected in its earlier stages.

In the *treatment* of this disease you should endeavour to keep the patient in the horizontal position as much as possible, as the gravitation of the blood towards the testicle is thereby prevented. Where the local symptoms are severely aggravated, leeches should be applied to the testicle, and repeated as occasion may require. Warm or cold applications may also be requisite; where the inflammation is slight, the latter will be of the greatest service; and, *vice versa*, cold applications relieve by preventing the tunica albuginea from becoming dilated; and warmth relieves by relaxing the structures that are tense. The bowels should be kept open by antimonial and saline medicines; and if there be much nervous excitement Dover's powder, in combination with opium, may be exhibited. If, after the stage of active inflammation has subsided, there should remain any glandular enlargement, or hardness, the testicle should be rubbed with some mercurial ointment combined with camphor, to absorb the effused lymph. I do not know whether this ointment has this effect, but I know that the hardness will disappear without it. In some cases the testicle may be inflamed without the symptoms running to so great an extent; but the disease may assume a chronic form, and may last longer. I used to call this tubercular inflammation of the testicle. Such a state of the gland as this may occur from local injury, but it most frequently arises from some constitutional cause, as from rheumatism or syphilis, or a general cachectic state of system. But from whatever cause it may arise, the symptoms and treatment are the same. At first there is but little inconvenience experienced by the patient; the testicle becomes gradually more swollen and enlarged in some parts, and harder in texture, as if there were some hard tubercular masses in it. Induration comes on, showing itself first in the epididymis; all this time the pain increases, though the patient may be able to go about as usual. This state of things continues, one tubercle gradually runs into another, until the entire gland,becomes one uniform, hard, oval mass. On making a manual examination you may detect some slight and obscure fluctuation, from a layer of fluid being effused between the tunics and the entire structure of the gland; sometimes this is not present at all, and sometimes it only occurs in certain parts of the gland. This disease used to be called hydro-sarcocele where fluid was effused in this manner, and sarcocele where there was no fluid. The hardness of texture, I should have told you, generally begins in these cases in the epididymis.

In examining the pathology of these cases the glandular structure of the testis is found studded with small masses of yellow inorganic matter. In a more advanced stage of the disease the yellow matter is found more organised in texture and softened in consistence. This has been denominated the yellow tubercle of the testis; gradually this yellow, cheesy matter becomes effused over the entire gland. Some have said that this yellow substance is secreted by the tunica albuginea, and others have decided that the tubuli testis are the secreting organ. For my own part I believe that the inner membrane of the tubuli testis is the secreting surface in these cases, but they are so small that you cannot detect this with the naked eye. If you examine the inner surface of the epididymis you will find sufficient to warrant you in supposing that it affords this morbid secretion the most freely.

If the disease progresses still further than this, the gland becomes adherent to the external skin of the scrotum, which in time ulcerates, and a foul, yellow, fungous growth protrudes. This fungus is the glandular structure of the testis, and protrudes in the same way that a hernia cerebri would. In time the tunica vaginalis and tunica albuginea ulcerate, and, divested of its natural coverings, the fungous gland protrudes, and you may trace the spermatic chord through it. Sometimes an abscess is connected with this fungous growth, and the inner surface of the abscess secretes the same yellow matter, in a fluid state, of which the fungous growth is composed. If this disease be arrested in its early stage the structure of the gland does not undergo much disorgani-

sation, or, if not checked so soon, a great portion of the gland may be destroyed, or if the gland be destroyed you will find a white fibro-ligamentous structure occupying its place, and you feel the spermatic chord with only a hard knob at the end.

Treatment.—Leeches, fomentations, and purgatives are here but of little use. Mercury here is as good a remedy as in iritis; put your patient, therefore, under the influence of mercury, and make his gums sore. If you treat the disease in this manner when it has only lasted three months, you may arrest it; if it has lasted longer than this it will relieve the pain and swelling, and check the progress of the disease.

TRANSVERSE PRESENTATION OF THE FŒTUS.—CRANIOTOMY.

To the Editor of THE LANCET.

SIR:—Should your deem the following case worthy of a place in your valuable and widely circulated Journal, I shall feel particularly obliged by your giving it insertion in as early a number of THE LANCET as possible. I remain, Sir, your most obedient servant,

ROBERT DAVIS, Surgeon,
1, City-road, Finsbury-square,
March 25, 1839.

At about ten o'clock in the evening of the 20th day of the present month (March), I was requested to visit Mrs. Synnott, residing in Gatward's-buildings, Hill-street, who had previously engaged me to attend her in her confinement. She is a woman of full habit, of about thirty-five years of age, and is now pregnant for the third time, having miscarried upon the two former occasions. A paroxysm of pain having come on during my stay in the house, I took that opportunity of making an examination per vaginam, and found the os uteri dilated to about twice the size of half-a-crown, and the membranes containing the liquor amnii protruding through the orifice. Being anxious before I left her, to ascertain the presenting part, I made gentle pressure with my fingers upon the membranes, as the pain receded, when, unfortunately, they gave way, and the liquor amnii, amounting in quantity to several pints, escaped. I was then able to feel the foot, and, supposing it to be a footling case, I took my departure, perfectly satisfied as to the favourable result. I again visited my patient early in the morning of the 21st, and found things in the same state as upon the previous night; and I also learned that she had had some sleep, the pains having subsided for several hours. At my second visit, in the evening of the same day, upon examination, I discovered that the funis had descended before the head; that the pulsation had ceased in it from compression thereon; that one of the feet lay in the anterior, and one of the hands in the posterior part of the vagina; and that the head had entered the cavity of the pelvis. Candidly speaking, being unable, positively, to say what the exact position of the fœtus was, and being ignorant from the confusion of parts, of the precise nature of the presentation, I introduced my hand into the vagina for the purpose of searching out the other foot and then bringing it down; but finding that impracticable, I determined upon leaving Nature to her own efforts, and sitting down quietly to watch the result. After the lapse of ten hours further suffering upon the part of the woman, and nearly of forty hours from the time I was first called in, I found, upon examination, that the foot had cleared the external genitals; that the head was impacted in the inferior aperture of the pelvis, one ear looking towards the pubis and the other towards the sacrum; the occiput was turned upwards and the face downwards, and the hand lay between the head and the perineum. Under these circumstances I determined upon performing the operation of craniotomy; and, in order that nothing should be done rashly or unadvisedly upon my part, I went to Doctor Conquest who is always extremely kind in imparting information to persons not so conversant upon these matters as himself, to ask his advice upon the subject. That gentleman advised me in the first place to attempt, even by force, to clear the hands and feet out of the vagina, so as to correct, if possible, the malposition of the child, and if not, to break down the head. Consequently, upon my return, having acted according to his directions, and not succeeding in my efforts, I decided upon performing the operation.

Having placed the patient as near as possible to the edge of the bed, and supporting the right knee with a pillow, I carried the perforator, guarded by the index finger of my left hand, into the vagina, and having applied it upon the anterior fontanelle, I pushed it forwards into the cavity of the cranium; and, after having broken down the substance of the brain, I then withdrew the instrument; by this process the brain was evacuated by the efforts of the uterus, but no further advancement towards the completion of the labour was made. I was, therefore, under the necessity of extracting the bones of the head separately, and of bringing down the arm which lay in the vagina, and which now came down without difficulty, in consequence of all impediments being removed by the operation, and of pulling by the scalp, so as to assist the efforts of Nature; by these means the child was at last extracted, to the great ease and satisfaction of my mind. It now became apparent what the nature of the presentation

was; the right leg and the right arm had descended before, but in conjunction with, the head into the pelvis, while the left arm and the left leg remained in the superior part of the uterus; so that the child came down completely double, and, consequently, would never have been expelled in that position by the natural efforts; and such was the compression upon the leg and thigh, that the ligaments of the knee-joint were extended to a great degree, and the joint itself violently forced backwards.

Post-mortem Appearances of Child.—Externally—eyes protruding from their sockets, humours of one eye discharged; skin vesicated and abraded; scrotum tumefied and of a purple colour, and right knee moveable in every direction. Internally—right lung normal, sank when subjected to the hydrostatic test; left lung light, flocculent, and emphysematous, and floated in water, in consequence of gas being effused under the pleura pulmonalis; liver large, and also emphysematous; all the other viscera healthy.

Although this case may not be new to some, yet, as I believe it is by no means a common one, I hope that it may prove interesting to many of the numerous readers of THE LANCET.

P.S. I forgot to say that the patient is fast recovering, without a single unfavourable symptom.

DANGERS OF THE

INDISCRIMINATE USE OF THE ERGOT OF RYE.

To the Editor of THE LANCET.

SIR:—As the ergot of rye and its properties have been of late much discussed in the columns of your Journal, I feel myself called upon to make a few observations in answer to two of your correspondents, Messrs. Wardleworth and Collier.

I consider the ergot of rye to be a medicine of the greatest importance to the profession and the public, involving, as it does, the credit of the former, and, in most instances, the happiness of the latter, at the same time acting almost as a specific, and when used with discretion the most happy results follow; but I almost tremble when I think of the free and indiscriminate use of it recommended by your correspondents above alluded to,—the former advocating its use in all cases (distortions and placental presentations alone excepted); while the latter, not content with its administration previous to delivery, also gives it on the following day.

Now, Sir, these observations coming through your Journal, and strengthened as they say by practical results, would very likely lead many young practitioners to take up this mode of practice, and thereby, in my opinion, cause them to fall into error, which time and experience would, I have no doubt, point out to them, but then, alas, too late.

Few men there are of experience, and of calm and cool reflection, who will not readily admit that the use of the ergot in first, or even in subsequent labours, before the soft parts, and more particularly the os uteri, shall have adapted itself to the accommodation of the infant head, is apt to produce such sudden and unremitting uterine action as to propel the head with great violence against the bones of the pelvis, at the same time destroying life.

I have generally observed that in protracted labours (and the more particularly in first cases) where the ergot had been administered, without immediately producing the desired effect, that the child was still-born, the effect arising either from some specific action on the child, or the effects of the pressure of the head against the pelvis.

When the os uteri is dilated, and there is sufficient pelvic capacity, with an absence of uterine action, *then*, and not till then, should recourse be had to a medicine, the modus operandi of which is so very little known, and the results so various.

It should be observed that the practice of Mr. Collier allowing the placenta to remain so long as twenty-four hours after delivery seems to be a trifling with human life that cannot be too strongly reprobated, as it is well known that it becomes then a foreign body, and, if not removed, calculated to produce rigors, hæmorrhage, collapse, and death. Your obedient servant,

CHARLES BRADY.

15, Charlotte-street, Blackfriars,
March 26, 1839.

EFFECT OF THE ERGOT OF RYE ON THE CHILD.

To the Editor of THE LANCET.

SIR:—It was not without surprise that I perused, in the last number of THE LANCET, a paper by Mr. Wardleworth, of Rochdale, on the action of the ergot of rye, containing opinions which I fear are likely to mislead the young practitioner.

The paper strongly advocates the employment of the ergot, and I am bound to confess I have never seen any injury inflicted on the mother by its use, but have repeatedly known children to have been still-born after its administration, when no other reason could be assigned for that circumstance, nay, when there has been proof positive that, at least up to a few hours previous, the child was alive.

If we observe the mode in which uterine action is carried on in natural labour, we find that it intermits entirely, and we may suppose that this peculiarity, like every circumstance connected with the animal economy, was destined to produce a peculiar result.

The circulation through the placenta, in all probability, is greatly obstructed during the contraction of the uterus, and the interval between the contractions permits that circulation to recommence, or at least to act with a proper degree of vigour.

Now, Sir, what is the usual action of the ergot of rye? It is followed generally by a pain of extraordinary vehemence, sometimes expelling the child at one effort, enduring, perhaps, for twenty minutes.

It needs little foresight to predict the result. If the placenta and chord (the membranes being ruptured) undergo not a fatal degree of compression, we can only say that it is a fortunate event.

I am partly induced to entertain this view of the effects of continued uterine action from having observed that, in those cases of puerperal convulsions where the action has been incessant, the child has been invariably still-born.

One point in Mr. W.'s paper strikes me forcibly, viz., that in 1500 cases in which he has given the ergot, twenty only were born dead, "and IN ALL the epidermis could be easily removed, with the gentlest friction, showing that they were rapidly advancing towards decomposition."

Parturition is a natural process, and so natural that in the hospital to which I am attached, in the years 1837-8, out of 1400 cases, or thereabout, not a single death occurred, and in that time I AM not aware of any necessity having existed for the employment of the ergot. This fact tends to prove that constant interference is superfluous at least, and neither reason nor "philanthropy" sanction such proceedings.

Admit that the ergot dilates the os uteri; admit, if you will, all the virtues ascribed to it,—still if its effect on the life of the child be even a matter of doubt, it ought not to be administered except under circumstances implicating the well-being of the mother; and to use it, feeling such a doubt, appears to me perfectly indefensible. I am, Sir, your most obedient servant,

WILLIAM BLOXAM,
Surgeon to the Royal Lying-in Hospital.
26, George-street, Hanover-square,
March 25, 1839.

FRACTURE OF THE CRANIUM.

To the Editor of THE LANCET.

SIR:—The following case happened on board the ship *St. Vincent*, in which I was a passenger, and as there was NO surgeon attached to the ship, my attendance was requested. I am, Sir, your most obedient servant,

G. H. SMITH, Surgeon,
Late House-Surgeon to the Dumfries and Galloway Royal Infirmary.
Pinang, October 23, 1838.

H. M., ætat. 19, a seaman, belonging to the ship *St. Vincent*, during her voyage from London to Canton, 1838.—On the 21st September, at 9, P.M., while the ship was sailing eight knots an hour, in latitude 29 deg. 24 sec. S., and longitude 30 deg. 53 sec. W., the seaman was engaged furling the mizen sail, and the rope by which he supported himself having broke, he sustained a fall of at least twelve feet, pitched with his head on the deck, near to the binnacle, with tremendous force, the stern of the ship rising as he fell. He was carried from the poop senseless, and put to bed between decks. The head was immediately shaved. A swelling was observed over the left frontal eminence, another over the left parietal eminence, and a third over the right superciliary ridge and outer angular process of that side; the first had a grating feel and irregular surface, but there was no distinct sensation of depression; pressure produced neither pain nor wincing. There was no wound. The right eyeball appeared preternaturally prominent; its pupil dilated, and nearly immovable, and there was ecchymosis below its conjunctiva. The left pupil was contracted, and also nearly fixed. Blood oozed from the left ear, the nostrils, and the mouth; respirations were deep, and occasionally stertorous; pulse 60; superior and lower extremities fell powerless when raised; he could not be roused; the feet felt cold; the countenance was pale. There was no other injury; artificial heat was applied to the feet. At 11, P.M., the heat returned; the pulse began to rise; the swellings had increased very much, and the head felt hot. Cold lotion to be applied.

22, at 4, A.M. The pulse was 120, and sharp; skin warm and rather moist; both pupils dilated, and less fixed; occasionally moved the left arm towards the head; the swellings were still larger, and not painful on pressure; blood continued to ooze from the ear; no stool; no urine. Bleeding to 24 ounces; enema, with one ounce of oil of turpentine at once. The pulse fell to 100, and lost its sharpness; the injection operated freely, and he passed at the same time a considerable quantity of urine. At 8, A.M. the swellings were united and fluctuated; he appeared as if in a deep sleep, and moaned; pulse 100, and small; blood neither cupped nor buffy; no stool; tongue cannot be seen; no urine. Repeat enema. At 3, P.M., the bowels had been freely moved, and he had passed water; frequently opened the left eyelids, and light seemed to

give uneasiness; pulse varied from 110 to 120, and was small; moaned much; left commissure of mouth drawn up.

Calomel, six grains;

Tartar emetic, quarter of a grain. To be taken at once.

6, P.M. The powder had been with difficulty got down, and he vomited half an hour afterwards; pulse 110. Repeat *calomel*, six grains, at once. At 11, P.M., the respirations were most frequently stertorous, but occasionally almost imperceptible; pulse 110, soft; did not vomit the powder; no other change.

23, 6, P.M. Pulse was 110, and variable; no stool; made urine; skin cool; no other change. Repeat enema, at once. 10, A.M. The injection had operated; respirations were deep, 30 in the minute, not stertorous; pulse 86; no symptoms of returning sensibility; feet cold. Warm bottles to be applied to the feet; repeat *calomel*, six grains. 6, P.M. Powder was not all got down; no stool; made urine; less contraction of left commissure; pulse 120, not so small; sighs; feet warm. Repeat enema, at once. 10, P.M. Free motion from the bowels; made three deep sighs, and then had a short attack of opisthotonos.

24. 8, A.M. No return of opisthotonos; comatose; pupils contract on the approach of a lighted candle; no sensation; pulse 120, and small; face rather flushed; bowels open; made urine; appeared weaker. At 10, A.M., a crucial incision was made over the left frontal eminence; large clots of blood were removed, and a fissure traversing it horizontally was found, but no depression. Another crucial incision was made over the left parietal eminence, and here, also, large clots were removed, the pericranium was found detached, and two fissures discovered, one apparently the continuation and termination of the former, the other crossing it, and running vertically down towards the temporal bone. The piece of bone at the angle formed by the crossing of the fissures was slightly depressed. A crown of the trephine was, therefore, removed, and the depressed portion raised; but this produced no change of the symptoms. A third crucial incision was, therefore, made a little above the right superciliary ridge; a fissure found running towards the inner angular process, but there was no depression. The wounds were stitched, and cold cloths applied. No pain was expressed, or seemed to be felt, and there was very little blood lost; pulse 98. At 2, P.M., the pulse was 120, and small; no other change. At 6, P.M., the pulse was 130, and small; and no other change. Repeat *calomel*, six grains, at once.

25. At 8, A.M., he continued comatose; expirations blowing; pupils contracted on the approach of light; no stool; no urine; pulse 114, and small; countenance pale and more emaciated; wounds look well. Repeat enema. At ½ past 4, P.M., he died, 91 hours after the accident, and without the slightest return of sensibility.

Autopsy seventeen hours after Death.

The scalp and large coagula over the left parietal bone having been removed, the two fissures were brought into view, one running obliquely upwards from the internal angular process of the right orbit, across the frontal bone, to the parietal eminence of the left side; the other which commenced near to the termination of this, and ran vertically down towards the left temporal bone, and base of the skull. The calvarium and dura mater having been removed from off the brain, a large coagulum was found spread nearly over the whole of the anterior and middle lobes of the right side of the brain, and found to have been effused from rupture of the middle meningeal artery of that side. On different parts of the surface of the brain there were numbers of small spots of ecchymosis, and the middle lobe of right side was much torn. Having separated the dura mater from the base of the skull, the fissure, which commenced at the internal angular process, was found to be continued obliquely inwards over the orbital plate of right side to the ethmoid bone; and the other to be continued over the petrous portion of left temporal to the middle lacerated foramen. Between the right eyeball and orbital plate a considerable quantity of blood was effused.

Remarks.—This poor lad, only twelve days before the present accident, had a narrow escape from being drowned, and had just sufficiently recovered to resume his watch. The nature of the fall on a smooth hard substance; the complete and continued insensibility; the oozing of blood from the ear, nose, and mouth; the projection of the right eyeball; the respirations being occasionally stertorous; and the other symptoms, all led me to suspect that there were extensive fissures traversing the base and other parts of the skull, with compression of the brain, most probably from extravasation of blood, in combination with concussion of that organ; and to form at once an unfavourable prognosis. On the first appearance of inflammatory symptoms he was bled to as great an extent as apparently could be done with safety, and his bowels were afterwards kept freely open. On the 24th he was evidently getting worse, and there seemed to be no hope for him. As it was suspected there might be a piece of bone pressing injuriously on the brain, and that his only chance remained in the removal of this, if found, and as the situation of the fracture was most likely indicated by the swellings, the incisions were made, and the depressed portion raised, but, unfortunately, without any benefit. We have here an example of rupture of a vessel on the side opposite to that on which the blow was

received; and it is rather remarkable, considering the extent of the extravasation, that vomiting should have been so easily induced, and that the catheter should not have been once required.

ON THE

DOCTRINE OF A VITAL PRINCIPLE.

By J. Johnston Kelso, *M.D., Lisburn.*

The observation of the illustrious author of "The Man of Feeling," is no less true than beautiful,—"That in knowledge and philosophy the chief purpose of research should ever be fixed on making simple what is abstruse, not abstruse what is simple." Fortunate, indeed, it had been for the interests of physiological science, if those writers who have advocated the doctrine of a vital principle had been guided by the comprehensive spirit of this sage precept of Henry Mackenzie; and, instead of conferring a host of properties on an imaginary agent, whose existence is incapable of physical demonstration, to have studied the science of life, in regard to its physical phenomena and laws, upon the vantage ground of an inductive philosophy.

The idea of a peculiar, incomprehensible *power* pervading the entire organisation, as essentially consisting of fluids and solids, influencing alike the minutest molecules and the several tissues of which the various organs are composed, and originating and maintaining all the special phenomena and actions of living organised beings, dates its origin at the early, but rather inauspicious, dawn of the science of physiology. The "*vis Plastica*" of the ancients; the "*Spiritus Archæus*" of Paracelsus and Van Helmont; the "*Anima*" of Stahl; the "*Bildungstrieb*" of Blumenbach; the "*Matter of Life*" of Mr. Hunter; the "*Vital Principle*," "*Spirit of Animation*," &c. of other writers, are modes of expression all of which obviously point to the same hypothetical principle to which, according to the peculiar views of the writer, have been ascribed fewer or more properties, some of which are no less fanciful than extravagant, and not even excepting the attributes of intelligence (Stahl). Of the existence, however, of this purely imaginary principle, as a distinct entity, we have not the slightest shadow of proof, either in fact or in collateral probability; and,—adopting the Newtonian rule of philosophising which, as is well known, inculcates, as a first principle, that "we are to admit no more causes of natural things, or of the phenomena of nature, than are both true and sufficient to explain their appearances,"—if the phenomena of physical or corporeal life be explicable, as I apprehend they, in great degree, are, on the principles of physics and of animal chemistry, it will necessarily follow, in conformity to the above rule, that the subsidiary—I had almost said *forlorn*—aid of a "principle of life" is both superfluous and unphilosophical; being, in fact, nothing but the figment of too imaginative minds. For it is clearly evident that each individual organ and part, in the complex structure of living organised beings, has its own peculiar and appropriate function and particular action; and since one immaterial agent, denominate it by what name we may, cannot possibly explain such multiform results, as is displayed in their economy, the inevitable conclusion is, that the doctrine in question is a mere nullity, a baseless fabrication, and wholly incapable of explaining, on rational principles, the complex phenomena of physical life; and, observes M. Magendie, "My experiments have proved that the various actions habitually called the *effects* of vitality, are merely *physical*."—(Lectures.)

But it may not be improper to observe, in passing, that a few comparatively recent writers, influenced, doubtless, by the vague ideas of the ancients respecting this subject, have, strange to say, fallen into the egregious error of confounding the thinking principle, or mind, with the phenomena of organic life. Important as it surely was, not only on philosophical, but also on religious grounds, that a correct and distinct line of demarcation should be accurately traced out between such essentially different principles, it is to the distinguished researches of modern philosophers that we remain under the deepest obligation of eliciting the truth from that which was spurious or false, and of erecting a truly beautiful and well-defined edifice on the ruins of a wilderness of error.

Here it is to be remarked, that *mind* (the existence of which is inferred from the manifestation of its peculiar attributes, in the same manner as is that of crude *matter*, by the display of its characteristic properties) can no more be separated from the material organ, the brain, in which it resides, than the phenomena of life can be dissociated from the physical organisation, with which they are inseparably and indissolubly connected. Besides, the most ample observation, drawn both from experiment and pathology, goes to establish the important fact, not only that the great mass of the hemispheres of the brain proper are generally appropriated to the acts of thought (Prof. Alison), but that the different and distinct parts of this organ, arbitrary though they be, are subservient to the different and distinct classes of mental phenomena.

Doubtless, then, as Horace quaintly observes, "there is some point of philosophy to which we may advance, if we can no further" (Ep. i. ad Mec.); and if the really immaterial and immortal principle of man be placed, like every ultimate fact in other

departments of science, beyond the pale of human discovery and investigation, still it is not, I think, too much to hope, that the laws of the relationship which exists between the various mental acts and the different parts of the cerebral organisation, which, after all, remain buried in much obscurity, may yet, from the accumulation of facts, founded on correct observation, be ultimately solved.

But in admitting, as I do, the existence of mind, as a distinct but unknown essence, does it, therefore, necessarily follow, that the organic functions and actions of living organised bodies are dependant upon an immaterial principle of life? By no means; although this, among other analogies of a similar kind, has been advanced by the advocates of the doctrine, as a cogent argument in its favour. But the theory, to assume the character of a philosophical doctrine, must repose on other evidence than that of mere analogy, however plausible *that* may be; and it is hardly likely that negative proof, in support of a most important question in physiology, any more than in other branches of science, will ever supersede the strict necessity of *positive demonstration*.

How, then, stands the question of a vital principle? Assuming, for the sake of argument, its perfect correctness, and holding still in view the fact, as conceded by its advocates, that this principle is the same element in all parts of the frame, in which of the structures, it may be inquired, does it especially reside? Does it essentially consist in the function of innervation, or in that of the circulation, or in the phenomena of animal heat, or, in a word, in any of the organic or vegetative functions? Most decidedly not; for, if any of these be the *sole* effect of one and the same cause, all the rest must, of necessity, be excluded from its direct and, according to this hypothesis, necessary influence, inasmuch as they are all essentially different and distinct. Indeed, it was long since sagaciously remarked by the late Mr. Allen, of Edinburgh, that even if the hypothesis be conceded as true, it is wholly inadequate to solve the complex phenomena of life.

We, therefore, as physical inquirers, conclude that the different processes and actions of living organic bodies originate and depend, not on the operation of an intangible, undefinable agent, whether material or immaterial, but on the peculiar mechanism of the different apparatuses,—on the original organisation, and the chemical affinities "of the self-moving and self-preserving machine." "The degree," says Dr. Pritchard, "in which these important functions of life have been explained, by a reference to the principles of mechanism and of chemical affinity, hold out a hope of advancing further in the same path, and of elucidating, by similar inquiries, various other processes, and possibly all the more recondite phenomena of animal existence."—*Review of the Doctrine of a Vital Principle.*

But, as every one at all acquainted with the medical literature of these countries well knows, it has, for a long time, been too much the fashion, among a pretty numerous class of our best writers and teachers, not only in physiology, but in almost every department of practical medicine, of explaining both the more intricate and obscure natural actions of the human frame, and those salutary yet inexplicable changes which are frequently observed to be effected in it, through the medium of certain remedies, in cases of disordered function or disease, by a reference to the presumed powers of the assumed presiding principle under review. This is, assuredly, making "confusion worse confounded;" and if I have succeeded in drawing, for a moment, the attention of the profession to some of the principal errors which plainly attaches to this still rather popular doctrine, I shall have fulfilled the intention which first prompted these hurried and imperfect remarks.

Lisburn, March 17, 1837.

THE FREQUENT ADULTERATION OF DRUGS.

CALOMEL, EXTRACTS, BELLADONNA.

To the Editor of THE LANCET.

SIR:—We are happy to observe that the attention of the profession is beginning to be directed to the disgraceful adulterations to which medicines are subjected. We hope it will have the effect of rousing our brethren from the state of lethargy into which they have been so long plunged, and induce them to take the honourable position of zealous cultivators of science, in place of the more degrading one of mere shopkeepers and traders. The profession certainly owe a debt of gratitude to Dr. Thomson for the facts brought forward in his evidence before the Committee of the House of Commons; and to you, also, for laying them before the medical profession. Very important facts may also be found regarding the adulterations which are carried on in the drug trade in a very able appendix, by Professor Christison, to a Report by the College of Physicians, of Edinburgh, on this subject. The disclosures which will, no doubt, be elicited on this subject, however painful and annoying to individuals, must do good; no evil can be remedied until it is fully known, and it will, therefore, be necessary, as sometimes happens in surgical cases, to use the probe, even although it should touch the quick.

Dr. Thomson, in his evidence, states that sulphate of baryta is a common adulteration of calomel, but we lately discovered a deterioration of a much more serious nature in that important remedy. A quantity of that drug, got from a wholesale London house, indicated very distinctly the presence of corrosive sublimate; we therefore washed it completely, and on drying it carefully we found that the six ounces of perfectly dry calomel which we used had lost exactly one drachm; the solution answered to all the tests for the bichloride; we then revived the mercury, with a solution of the protochloride of tin, but from an accident that unfortunately occurred to the vessel in which the process was conducted before we could get the mercury weighed, we could not ascertain the exact quantity. Now, allowing that there was a drachm, and there could not be much less, from the quantity of metallic mercury recovered, we would have one grain of corrosive sublimate in every forty-eight of the impure calomel; a quantity, we should conceive, very likely to produce serious consequences in certain cases, when large or frequently repeated doses are given; or, at all events, very much to obscure the results of treatment. Although this deterioration cannot have been designed, the result is equally serious, and must have arisen either from the grossest ignorance or the most culpable carelessness, and shows the necessity of allowing no one to enter into any department of the drug trade without the most searching examination of his knowledge of pharmacy, both practical and theoretical.

The evidence of Dr. Thomson regarding the inferiority of the extracts supplied to the profession is fully confirmed by the facts that have come to our knowledge. Is it not amazing, that notwithstanding the admitted superiority of the extracts prepared according to Barry's method, and which has now been so long known to the profession, it has hitherto been almost impossible to procure them, but that the ordinary trashy, and frequently worse than useless extracts, are in regular use. With this view of the subject we recently got a vacuum apparatus fitted up, and in the preparation of extracts with it we ascertained that the inferiority of the ordinary extracts must arise from something in addition to that arising from the way in which they are usually prepared; probably in some way equally ingenious with that of the drug-grinder mentioned in Dr. Thomson's evidence, who, out of two chests of Peruvian bark manufactured twenty. After thoroughly exhausting a quantity of Indian rhubarb with water we obtained 4½ oz. of extract from every pound of the root, after due evaporation of the liquid. The price charged for the extract, according to the wholesale London price list, is 10s. per pound; the root itself is 5s. 9d. per pound: now it is evident that if a genuine root is used for the preparation, it ought to be 20s. per pound, without allowing a single penny for profit or expense incurred in making it. From 15 oz. Peruvian bark we obtained 1½ oz. of extract; however, we may say 2½ oz., as by our method there is about an ounce of inert resinous matter separated in the course of preparation, leaving a perfectly transparent extract. The present price charged for the extract is, at a maximum, 14s. per pound; the bark was 3s. per pound some time since; now, at such a price, without allowing anything for the trouble of preparing it, the extract should be 19s. per pound; but as there has been a considerable rise in the price of bark, the difference must be much more striking; we will make no comment, as the facts speak for themselves.

Another circumstance came to our knowledge which shows strikingly the evils that may arise from ignorant individuals getting into the drug trade. We employed a herb-collector to procure us some belladonna for the preparation of the extract, for which she brought us a quantity of solanum dulcamarum, instead of the belladonna; on informing her* that she had not brought the proper plant, she expressed her surprise as she had been in the habit of supplying a wholesale drug house with large quantities to be put to the same use. We will not take up your valuable space with any further remarks, but remain, your obedient servants,

T. & H. SMITH,
Chemists and Druggists.
21, Duke-street, Edinburgh,
March 23, 1839.

THE LIVERPOOL APOTHECARIES' COMPANY.

To the Editor of THE LANCET.

SIR:—Some weeks ago I observed in your excellent Journal a few seasonable remarks from a correspondent, on the self-styled Liverpool Apothecaries' Company, and I trust that in the impartial exercise of your editorial power you will allow me also, as a member of the medical profession, to say a word or two on the same subject, for I regard the proceedings of that body as prejudicial and derogatory to the best interests and respectability of this same profession.

The assumption of the title "Apothecaries' Company" is, in the first place, a fraud, for that Company is composed of trading speculators of various grades and callings, the purchase and possession of shares being all that is required as the qua-

* Women are in the habit of collecting medical plants for the druggists in Scotland.

lification of a director, whether the subscriber be tailor, tinker, butcher, or whatever else. Now, Sir, I would ask, are such men, however respectable in their several and proper avocations, fit persons to have the control and management, nay, even monopoly, of the sale and dispensing of drugs and medicines, with the distinctive appellation of "apothecaries."

Again, the propounders of the scheme, Drs. Carson, Brandreth, O'Donnell, &c., recommended it to the public on false grounds. By a sweeping libel upon the established druggists of the town, they declared that genuine drugs were not to be obtained from them, and hence the necessity of this joint-stock company. They, therefore, started it under the plausible pretext of disinterested zeal for the public good, and pledged themselves to supply nothing but a first-rate and genuine article,—that pledge, Sir, they have violated.

They are distinctly charged by a correspondent of the "Liverpool Mercury" (who undertakes to supply proof of the fact), with having purchased a quantity of a cheap and spurious bark, which had been rejected as worthless by several London and Liverpool druggists, and selling the same at the full price of, and as the true Peruvian bark, for medicinal use; showing, notwithstanding their hypocritical pretences, that the sole object of the Company is sordid monopoly of trade and profit. Such deception should, in my opinion, be exposed, although sanctioned by the high names of the learned Drs. Carson, Brandreth, O'Donnell, Bryce, and Co.

There is much more to be said, on public and general grounds, on the injurious tendencies of such a heterogeneous association of profit-seeking adventurers; but for my limited and professional view of the subject I will content myself with this concluding remark, that while, as a body, we condemn, in the strongest terms, any infringement of our privileges by the chemist and druggist, we should not let those escape censure who, while they assume the higher ranks of the profession, interfere with the trade of the druggist under false pretences, become rival vendors of quack and secret remedies, and then sink in the comparison as dispensers of spurious drugs. Your obedient servant,

A GENERAL PRACTITIONER.

Liverpool, March 25, 1839.

BI-MECONATE OF MORPHIA, A NEW PREPARATION OF OPIUM.

To the Editor of THE LANCET.

SIR:—I beg leave to introduce to your notice, and to that of the medical profession at large, a preparation of opium which appears to possess advantages over those which are now in general use.

In reflecting on the artificial salts of opium, and the powers of opium itself, I was led to suppose that the natural salt existing in this drug would be the best therapeutic agent, could it be separated from the other ingredients, which have often been found obnoxious to its soothing properties. I therefore instituted a series of experiments with a view to accomplish this task, and have obtained the *bi-meconate of morphia* in a form which appears to have succeeded in a most satisfactory manner, as the subjoined reports will show; and should the same success attend its employment generally by the profession, I shall feel a high gratification in having enhanced the value of a medicine which is so justly esteemed for its efficacy in relieving the sufferings of humanity. I have the honour to remain, Sir, your very obedient servant,

P. SQUIRE.

277, Oxford-street, March 4, 1839.

To Mr. P. SQUIRE, *Chemist to the Queen, from* RODERICK MACLEOD, M.D., &c. &c.

"Dear Sir:—I have now used the solution of the meconate of morphia in cases sufficiently numerous to enable me to form an opinion with respect to its powers.

"It appears to me to be a very mild and efficient preparation, rarely producing headach or other discomfort. It has repeatedly answered in the most satisfactory manner where opium had disagreed, and has succeeded in some cases where the other salts of morphia (the acetate and hydrochlorate) had failed to give relief. I am, Sir, your obedient servant,

"R. MACLEOD.

"1, Lower Seymour-street,
"Feb. 11, 1839."

To Mr. P. SQUIRE, &c., *from* A. T. THOMSON, M.D., *Professor of Materia Medica in the University College, &c. &c.*

"Sir:—I have given a fair trial to your new preparation of opium, the bi-meconate of morphia, which, being separated from many of the other constituents of opium, undoubtedly possesses anodyne properties superior to any of the salts of morphia in ordinary use. I have not had many opportunities of administering it in the hospital, but where it has been given in painful affections, its influence has been most striking.

"I have administered it in three cases, in private practice, well calculated to illustrate its properties. The first was a neuralgic pain of the left side of the face, extending from the temple to the molar teeth of the upper jaw. It remitted during the day, but never wholly subsided, and returned with frightful severity at night. Among other means which were employed, ano-

dynes of various kinds were tried, both topically and internally administered, namely, extract of opium in combination with calomel, hydrochlorate of morphia, acetate of morphia, Battley's sedative, and the black drop; belladonna in small and frequently-repeated doses, and in the form of plaster; hyoscyamus, both tincture and extract, and the extract of aconite. Temporary ease was obtained from the salts of morphia and the extract of aconite, but no permanent advantage resulted, although the pain assumed more of an intermittent character, and consequently disulphate of quina and arsenical solution had been freely administered. The strength of the patient was truly worn out from want of sleep, and under these circumstances your solution was prescribed. Thirty minims were prescribed in a fluid ounce and a half of camphor mixture, at bedtime, and two hours sound sleep were procured, and, on awaking, the patient felt the most satisfactory abatement of her sufferings. She was ordered to continue it in doses of eight minims, in combination with fifteen minims of the arsenical solution, every third hour during the day, and to repeat the full dose of thirty minims at bedtime, whilst, at the same time, the bowels were kept moderately lax.

"The most gratifying results followed this plan of proceeding; the pain gradually yielded; in less than a week she had comfortable nights, after which the dose of the bi-meconate was rapidly diminished, its use discontinued during the day, and on the third week I had the satisfaction of leaving her perfectly free from the complaint.

"The second case was one of wakefulness, without any apparent cause. All the usual preparations of opium had been tried without much benefit, and with suffering from headach and nausea on the mornings following the nights in which the narcotics were administered. The solution of bi-meconate of morphia was given, in doses of twenty minims; it effectually procured sleep, and was not productive of the morning distress which had supervened the use of the other preparations of opium.

"The third case was one of anomalous pain of the hip, extending down the thigh, which recurred three or four times in the twenty-four hours. The patient had been frequently attacked with rheumatism, and conceiving it to be connected with that disease, the part was cupped, and the guaiacum mixture, with small doses of blue pill, was prescribed. Little benefit resulted, until a week afterwards, when I ordered the part to be blistered, and the denuded surface to be dressed with a piece of lint dipped in your solution three times a day. The pain rapidly abated, and on the fourth day it was completely gone.

"From the limited experience which I have had of the use of the solution, I am of opinion that it possesses decided anodyne properties, and stimulates less than opium or its tincture, and is much more certain in its influence than any of the artificial salts, or other preparations of the drug. Believe me yours truly,

"ANTHONY TODD THOMSON.

"3, Hinde-street, Manchester-square,
"March 4, 1839."

To Mr. P. SQUIRE, &c., *from* HENRY BRANDON, Esq.

"My dear Sir:—I have much satisfaction in complying with your request to furnish you with an account of the effect which the meconate of morphia (same strength as laudanum) has had upon me, in comparison with the other preparations of opium that I have taken.

"My experience as an individual may, probably, be interesting, as well as somewhat useful.

"I have been the martyr to a spasmodic affection of the muscles for upwards of fourteen years, and was obliged, after trying every other means in vain, to have recourse to opium. I have taken crude opium, laudanum, aqueous extract of opium, black drop, liquor opii sedativus, and the acetate of morphia, and I must declare that not one of them has succeeded so well as the meconate of morphia, which relieves so much sooner, and without disturbing the stomach, leaving the system altogether in a more natural state of repose.

"My experience has taught me that anodynes ought to be taken in solution, having found that when taken in the solid form they irritate by producing qualms in the stomach, frequently amounting to nausea. The aqueous extract does this less than the crude, but they are much more free from the exciting quality when in solution, and the solutions themselves, the purer and more free they are from the resin and other impurities, the less do they produce that unpleasant effect. Whether there be any additional cause why your meconate of morphia relieves so much quicker and strongly than others, you yourself best know.

"My firm belief is, that the qualms or unpleasant sensations in the stomach, interfere materially with the soothing properties of the opium, and finding your preparation so free from these objections, added to the opium taste remaining a much shorter time on the palate than is the case with the other preparations of opium, I am induced to continue the use of it.

"The greatest quantity of opium that I ever took was in June, 1838, at which time I was suffering under a dreadful attack, when, in seven consecutive days, I took as much as 540 grains of the aqueous extract of opium, which is equal to 810 grains of the crude.

"I have taken ten grains of the acetate of morphia at a dose. My total consumption of opium for the year 1838 was equal to 49 pints 1 oz. of laudanum, and upwards.

"It is singular that none of the preparations of opium have ever confined my bowels or injured my appetite, although I take no exercise; indeed, a large dose of opium invariably increases my desire for food, and sometimes to a ravenous degree. I shall now conclude, and believe me, my dear Sir, yours very truly,

"HENRY BRANDON.

"14, Percy-street, Bedford-square,
"Feb. 18, 1839."

PRACTICE OF MEDICINE BY DRUGGISTS.

REMUNERATION OF MEDICAL MEN.

To the Editor of THE LANCET.

SIR:—Your correspondent, Mr. Woolley, has published a very striking case, to prove—what I have long been contending—the impropriety of chemists prescribing for persons calling at their shops for advice; it has become so general, that I am confident deaths are daily arising amongst the poor from this baneful practice. I am constantly hearing of, or being called to, persons in the last extremity, who might, in all probability, have been saved, had bleeding, or other proper remedies, been resorted to within the first day or two; but these pretended medical men go on physicking the patient till the regular practitioner is merely summoned to pronounce that he is dying. The poor woman he alludes to exhausted her last shilling, drawn forth with difficulty, to procure medicine which, in all probability, would have been much better omitted; and I quite agree with Mr. Woolley that a coroner's inquest was necessary in this case, but, had I been a juror, I certainly should have condemned his assistant for administering medicine to a person he had never seen, and when, in all probability, he was not qualified to prescribe at all. The boy's death might be remotely attributable to accident, accelerated by bad treatment; and Mr. Woolley and myself differ on this point only, he wants a qualified medical coroner for the dead, and I recommend qualified medical attendance for the living.

While on this subject I would allude to another evil of frequent occurrence, I mean the incautious conduct of physicians, who leave their prescription on the table, after visiting a patient, without inquiring by whom, or in what manner, it is to be prepared. I think no one ought to dispense medicine who is not interested in the effect it produces; but the chemist is indifferent to the patient, not responsible for his recovery, and usually entirely ignorant of the science of physic, and of the nature and property of the drugs which he compounds; and to this cause is attributable the fatal mistakes which are of common recurrence, and the still greater number which elude discovery. Three such cases have occurred to which I have been summoned; the life of one lad of thirteen was lost, the other two were saved by timely antidotes.

There is an impression abroad that medical men are remunerated for their labours by sending a superabundance of medicine. Some few mercenary men certainly may have acted so, and brought disrepute upon the profession; but ought the whole to be stigmatised for the rapacity and avarice of the few? The science of medicine is a study of the profoundest investigation; its object to alleviate suffering and eradicate disease; and I cannot fancy anything more revolting than that a practitioner should leave the bedside of a patient studious of self-emolument rather than his recovery. But the prevalence of this belief has a detrimental influence over the public as well as the profession; for many are deterred from seeking advice till delay has aggravated the complaint, and even then are indifferent to taking one-half of the medicine prescribed, though the omission in the case of active disease is often productive of serious consequences. Nothing is so annoying to me as to visit a patient who has thus neglected my directions; indeed, under such circumstances, I would rather withdraw my attendance, because my feelings are not only wounded by the want of confidence, but my object, the recovery of my patient, necessarily defeated. For myself, I have ever found the liberal part of the community ready to recompense me for any extra attendance or anxiety; but if the public at large are mistrustful of the profession, I would propose a different mode of remuneration; let the regular medical attendant receive a stipulated sum annually from each family, according to its number; this attendance to comprise occasional visits in health, and every needful attention during sickness; in short, to preclude every charge except for operations and attendance in midwifery. Occasional calls from persons not regular patients might be remunerated with a fee for every three or four visits; this also to include medicine. Pharmacy would thus be practised as a science, and doubt and mistrust be eradicated from the mind of every individual.

Nothing gives me so much pleasure as to meet a liberal physician or surgeon in consultation, who will discuss his patient's complaint, and give his reasons for the opinion he has formed, and who takes an interest in knowing that his prescriptions are accurately dispensed and administered, that he may judge of the effect at his successive visits. Let him fill his place in

society as his profession and situation require, but without disparaging the practitioner who has not the M.D. affixed to his credentials; for unless we attach much importance to this appendage, where is his superiority over the surgeon-apothecary? Both are endowed with the same mental faculties, and the general practitioner, after having served his apprenticeship, is subjected to an ordeal, in passing the College of Surgeons and Apothecaries' Hall, which obliges him to have a classical and medical education quite equal to the man who becomes a Licentiate of the College of Physicians. He also acquires his future professional knowledge, not by theory only, but by visiting the sick in cellars and in garrets, where aggravated disease is only to be found, and from which the rank of the physician in great measure exclude him.

I wish to see the physician and the general practitioner go hand in hand, upholding each other; the profession itself placed on such a footing as shall promote the improvement of science, and the best interests of the community; and the druggist usefully occupied behind his counter, attending to the duties thereof, without stepping beyond its precincts to give advice, for which his education has not qualified him. I am, Sir, your obedient servant, CHIRURGICUS.

March 19, 1839.

MEDICO-CHIRURGICAL SOCIETY.

To the Editor of THE LANCET.

SIR:—I beg you to censure the extremely objectionable way in which the business of the Royal Medical and Chirurgical Society is conducted. The members are allowed to speak just as often as they like on any one subject, and to wander, in any manner they please, from the question. Thus, any two or three gabblers may take up the whole evening, to the exclusion of valuable papers in the hands of the Secretary, and to the consequent injury of the authors. Surely such violations of all the recognised rules of debating are quite unjustifiable. Last Tuesday night, for example, some men spoke three or four times, and I aver that there was only one man, and he only once, who either confined himself to the question, or, indeed, knew anything of it. Should any man speak three or four times on one subject, lugging in by the head and shoulders (like Sancho's proverbs) all his crotchets on every subject? Why should we be bored with men's notions of "blue-pill," and "liver disease," and "tetanus," and "inductive science," and definitions of "volition," and so on? What had the debate on Tuesday, for instance, and what have the debates generally, to do with the question? I am, Sir, your humble servant,

A MEMBER OF THE R.M.C.S.

March 29, 1839.

THE LANCET.

London, Saturday, April 6, 1839.

WHEN the Report on the Sickness, Mortality, and Invaliding among the Troops in the West Indies was published, we adverted to an error in the average strength, stated in the medical returns. The mode of deducing the mean numbers living, or what is called the mean strength in the Army, is extremely simple. Count the number of individuals present at equal intervals of time, add together the numbers thus obtained, and divide the sum by the number of enumerations; the result will be the mean strength. The mean population of a country like England is obtained with sufficient accuracy by counting the numbers living, every ten years: thus, the female population of Great Britain in 1821 was found to be 7,254,613, while it was 8,376,295 in 1831; the mean numbers living in the ten years was, consequently:—

7254613
8376295

2)15630908

7815454

In small fluctuating bodies, like regiments and armies, more frequent enumerations should be resorted to; the numbers receiving pay may be counted on the 1st of every month; the sum of the 12 enumerations divided by 12 will give the annual mean strength, and, to ensure accuracy, it is only necessary to take care that all are included in the strength who would, in case of death, be included in the deaths; no more nor no less. Now, it happened for several years that the medical returns overstated the mean strength, and often gave, instead of the *mean* strength, the *highest* number under the care of the medical officers at one time during the year; while they omitted the deaths by violence which occurred out of hospital. The result of the two operations was to diminish the apparent mortality

considerably. It has since been stated to us that these errors did not lie at the door of the medical officers, who had no means of ascertaining either the mean strength, or the deaths, which occurred out of hospital. This may be the more readily admitted, as it is not probable, and we never intimated, that the blame laid with the medical officers of the Army. The blame laid with the system; the statistical forms and instructions were imperfect; and it is gratifying to be able to remark that the two sources of error have now been removed. If the Army medical officers of past ages had accidentally fallen into an understatement of the mortality which happened under their care, it would have been, to a certain extent, excusable. This will be readily admitted by all who have read the Gazettes, and the statements of the strength of armies by both parties—the victors and the vanquished. The fortunate leader always understated his strength; the beaten multiplied their enemies by two or three, at least, and sometimes by as many as ten, even when they were no longer under the influence of fear. The writers of despatches evince a considerable ingenuity in these calculations. In the first place, they count on their own side "the number of bayonets in the field," and thus, we presume, exclude all the officers, from sergeants upwards; in the second place, they take the gross strength of the enemy, and sometimes include the officers, the staff-combatants, the non-combatants, the sick, and the commissariat department, without forgetting even the women and part of the baggage. On an emergency, the numbers actually engaged are opposed on one side to the gross strength on the other. In the late war it was a very poor despatch-writer,—a very prosaic General,—who could not make the enemy double the number of his own troops. No one was ever beaten by less than his own force, and rarely by less than three or four times his own numbers. Not to refer to the Austrian and French bulletins, the strength of the armies at Toulouse and Waterloo has never yet been decided. This system of equivocation, not at all creditable to men who profess to be so sensitive under a charge of falsehood, is likely to disappear with the progress of reason and morality. It has, however, retarded the progress of medical statistics, as foreign governments have thought it necessary, even in peace, to throw some mystery over the actual force of their armies, although that force can always be ascertained with sufficient accuracy for practical military purposes.

The mean number living,—the quantity of life,—is the basis of all medico-statistical operations; and the method which has been given above, for armies, is equally applicable to hospitals, friendly societies, pauper-lists, and private practice. A person in tolerably extensive practice may determine the mean number of persons under his care, by quarterly enumerations.

When the enumerations of the Army are made, it is useful to distinguish different classes; the officers, for instance, and the sick. This has been done in the Reports; and the result, as regards sickness, is, that in the United Kingdom 3.73 in 100 of the Dragoons are constantly sick in hospital. The aggregate years of life (1830-6), found by the addition of the annual mean strengths, were 43,163; the years of sickness 1609. The reporters remark that the sick do not include the sick of detachments having no medical officer in charge; and they conceive that, with this addition, the mean numbers constantly sick will be 4 in 100. There are consequently, in the year, 4 times 365 = 1460 days of sickness to 100 soldiers; or 14½ days of sickness to each soldier: and as the number of attacks in the year was 93, the duration of each attack must have been 16 days (1460 divided by 93).

The invaliding and pensioning of soldiers and officers in the Army have been conducted ignorantly, unjustly, and extravagantly. It is well known that there are now as many soldiers on the pension-list as on the army roll; in other words, that twice as many are paid as are employed; and that neither the *neglected* state of our Army or Navy can be

ascribed to economy in this part of the expenditure. For every general or admiral employed, eight or ten are paid; while it is clearly for the general interest to employ the ablest men, to pay them well, and to pay those nothing who do nothing. It is to be regretted that, by the present regulations, the medical certificates are made mere matters of course; and that the medical officers are expected, at the expiration of a certain term, to assign causes of discharge, whether such causes exist or not. This should be stopped; the medical officers of the Army should protest against the system, as the present certificates have a necessary tendency to cast a shade on their veracity. The present loose manner in which medical certificates of every kind are granted, demands serious reflection; it is very like almsgiving, liable to great abuse, and, though done from benevolent motives, often leads to mischief, and is not a little calculated to compromise the medical character in the eyes of the public.

The following are the proportions per 1000 discharged annually from the Army:—

In Jamaica	16
Windward and Leeward Command	24
Gibraltar	16
Malta	20
Ionian Islands	18
North American stations	19
United Kingdom:	
Household Cavalry	18
Dragoons	26
Foot Guards	36

The reporters distinguish those discharged under 14 and 21 (cavalry, 24) years service, from those discharged after 21 (or 24) years service, as the latter include many who have completed the period of service usually exacted from soldiers. In the Foot Guards 18 per 1000 are discharged in the first period; 6 in the second; and 12 in the third period, or after 21 years' service.

Having now noticed the most important facts in the first section of the Report, we proceed to the third section, relating to British America. And it must here be remarked that the observations do not refer to the same period as those upon which the first section is based; the period here taken includes the 20 years, 1817—36, when the mean strength referred to in the medical returns was 2206; the total deaths 649; the total admissions into hospital 36,174; the annual deaths out of 100 living 1.47. But several small detachments were under the charge of private practitioners; and by the more accurate War Office returns, it appears that the mean strength was 2322; the total deaths 829; the annual mortality per cent. 1.78; or 21 per cent. higher than in the medical returns, which left no less than 180 deaths unaccounted for. The mortality differs inconsiderably from the mortality in the United Kingdom; nor is there any remarkable modification presented by the diseases, whether febrile, pulmonary, or hepatic. We must here advert to the soil and climate, as the facts have an important bearing upon the prevailing medical hypotheses.

Nova Scotia is a peninsula, of an area of 15,600 square miles, bounded by the Atlantic, the Bay of Fundy, Cape Breton, and the Gulf of St. Lawrence, and united to New Brunswick by a strip of land eight miles broad. The ground is undulated, but not mountainous, none of the hills attaining an elevation of more than 800 feet. Not a twentieth part is cleared, or under any cultivation. The south-east coast, that looks upon the Atlantic, is bold, rocky, sterile; the south and west coasts are marked by deep indentations, bays, and lagoons, upon which the gulf stream rushes in tides of from 60 to 70 feet, overflowing the country to the distance of several miles. Small streams, fordable at low water, are converted by the flood into arms of the sea, while in the ebb their banks are left covered with alluvial soil, and converted by embankments into a rich meadow land. The interior of the peninsula is covered with woods, lakes, and bays; and it is estimated that one-third of the surface is under water. The country around Windsor, and the head of the Bay of Fundy, is marshy, and presents a muddy surface, exposed, during the summer, to a high temperature: in the words of the re-

porters, "it abounds in the agencies supposed to give rise to malaria."

New Brunswick is a section of the American continent; it lies in the latitude 45°—48° N., longitude 64°—68° W., and comprises nearly 14 millions of acres of land. The surface assumes a mountainous character; cultivation has made little progress, and the whole province, with the exception of a few spots along the banks of the principal rivers, is still covered by dense forests. The troops are principally quartered at St. John's and Fredericton, both situated on a broad river which intersects the province. The soil in the neighbourhood of St. John's, and to the distance of several miles, is dry and stony; in the vicinity of the town it is tolerably well cultivated. Fredericton, the head-quarters of the regiment, lies 80 miles higher up the river, on an alluvial strip of land, about two miles in length, and so low as to be very subject to inundation. The climate of these provinces is remarkable for great and sudden alternations of temperature; the summer is hot, the winter cold; the thermometer has been known to exhibit a difference of 52° in 24 hours. The atmosphere of Nova Scotia is exceedingly moist. Should we not expect, in such a climate and country, to see the development of malaria, and the prevalence of intermittents? And what is the fact? Why, only 37 cases of ague were treated in the twenty years; 15 of remittent, 2 of yellow, fever; while there were 3001 cases of continued fever, synochus, or typhus, of which 71 terminated fatally.

"This shows at a glance that almost all the fevers are of the common continued type which is found to prevail in every climate. Intermittents are so rare that not two cases occur among the whole force annually, and these have, in almost every instance, been traced to individuals who had previously suffered from them in Upper Canada. Though such an exemption might be expected for the troops at Halifax, owing to the arid, rocky nature of the soil, and the absence of all causes likely to induce that form of fever, yet it is singular that the same exemption should extend to the troops and inhabitants at Windsor, Annapolis, Fort Cumberland, and Fredericton—situations abounding with those supposed sources of malaria, which, in the provinces of Upper Canada, under a similar temperature, are found, or at least are supposed, to produce fevers of the remittent and intermittent type. On that subject the medical officer at Fredericton particularly remarks that, though the station is on the alluvial bank of a large muddy river, surrounded by forests interspersed with swamps, with vegetation in abundance, and in every shape undergoing decomposition, yet the diseases attributed to malaria are scarcely known; and the same subject is frequently adverted to with equal surprise by other officers who have served at that station and on the western coast of Nova Scotia, where the agencies supposed to generate malaria exist in such abundance."

The reader must account for these facts as he best can; but let him form no theory until he sees the other facts relating to the troops in Canada and the Mediterranean. The authors of the Report are evidently inclined to throw the utmost doubt upon the present doctrines of malaria. We shall first lay before our readers the facts which they have collected, and then examine the grounds of their incredulity.

Here is another vague medical tradition demolished by direct observation and numerical analysis. It is universally taught in the schools that pneumonia and pleurisy, and diseases of the lungs, are occasioned by sudden atmospheric vicissitudes; yet the deaths from diseases of the lungs among the Dragoons in the United Kingdom were 7.7 per 1000; in Nova Scotia and New Brunswick 7.1 per 1000, or nearly the same, after a correction for omissions. It may be objected to this, that the influenza was epidemic in England, and that it is hence not fair to compare the pulmonary diseases of 1831—March 31, 1837, with the pulmonary diseases of 1817—36. If, however, the same period be taken for both, the admissions will be found lower in the proportion of 120 to 148 in America, and the deaths as .0075 : .0077. The following observations also bear directly upon the question:—

	Aggregate Strength in Returns of Twenty Years.	Total Admissions from Inflammation of the Lungs and Pleurisy in that period.	Ratio per 1000 of the Force attacked Annually by these Diseases.
Gibraltar.....	60,269	2,543	42
Malta	40,826	1,391	34
Ionian Islands	70,293	2,272	32
Bermuda.....	11,721	441	37
Nova Scotia and New Brunswick	44,120	1,577	35

"Thus almost exactly the same proportion of the force is admitted into hospital for these diseases in Malta as in Nova Scotia and New Brunswick, though it is impossible to conceive two climates more dissimilar, so far as regards temperature and atmospheric vicissitudes.

"In this command, too, there does not appear to have been any great increase in catarrhal affections of late, as has been the case in the Mediterranean, for the average proportion of admissions during the last seven years is, to within a fraction, the same as in the thirteen which preceded them."

Spirits are cheap, and there are few stations where intemperance is carried to a greater extent, yet only 10 died of liver disease=.0005 annually: half as many as die of liver disease in the United Kingdom. The ratio of diseases of the stomach and bowels is higher in the proportion of .0015 to .0008, a difference ascribed to the introduction of invalids from the West Indies. Diseases of the brain are twice as numerous as in England: 11 per 1000 had an attack; 1.3 died annually. The "brain fever of drunkards" occurred in 217 cases, and terminated fatally in 12.

Political Medicine; being the Substance of a Discourse lately delivered before the Royal College of Surgeons in Ireland, on Medicine, considered in its Relations to Government and Legislation. By H. MAUNSELL, M.D. Renshaw. London. 1839.

UNDER the above title Dr. Maunsell has just published some very sensible observations, which we would particularly recommend to the notice of our non-medical readers. By political medicine Dr. Maunsell would designate the science when applied to the object of protecting the public health, and providing for the physical well-being of the human race. The various applications of medicine to this, the higher department of the science, are briefly pointed out by the author. Vaccination, and the immense benefits which have been conferred upon mankind by its discovery, are demonstrated on evidence which is already familiar to the professional reader. Dr. Maunsell next touches on the improvements which have been, of late years, effected in the health of seamen, and of persons confined in prisons. After having drawa vivid picture of the miserable state of our prisons in former days, Dr. Maunsell observes,—

"Such was the state of prisons in former days, when they formed so many nuisances, in which were reared, and from which were spread, the most deadly diseases. Even at present the mortality in the prisons of some countries is very remarkable. In the Depôt de Mendicité of St. Denis, at Paris, the annual mortality in 1815-18 has been stated, by M. Villermé, to be nearly one in three of every prisoner admitted. This statement has been commented on by the 'Moniteur;' but even that official organ admits the mortality of the prison, in 1818, to be one in seven. In the other prisons of Paris, La Force, St. Pelagie, and the Conciergerie, the ordinary rate of deaths is about one in twenty-three annually; and that of the prisons of the Netherlands has been stated, by M. Quetelet, at one in twenty-seven. Now, in England, according to Dr. B. Hawkins, the average annual mortality in the King's Bench and Fleet Prisons ranges between one in fifty and one in fifty-five; and in the prisons of Dublin the following statement, which has been kindly furnished me by my friend Dr. Harty, shows a vastly lower rate of mortality:—

The total number of deaths, in the four criminal prisons of Dublin, during the 28 years, from 1811 to 1838 inclusive, amounted to	147
The total number of committals in the same period was.....	92,000
The total number of deaths, in the two debtors' prisons, during the 28 years from 1811 to 1838 inclusive, was	69
The total number of committals during the same period was ..	41,000

"These results, in themselves highly creditable to the able medical officers of these establishments (Dr. Harty and Mr. Read), when placed in contrast with similar matters in former years, and in other countries, as shown above, furnish additional and irresistible evidence of the importance, to the whole mass of the community, of the study of *political medicine*. Without it the penal institutions of the country would be now, as they were so lately, as in the days of Howard, not the means of punishing crime and reclaiming criminals, but the instruments for spreading pestilence and death throughout the land."

The subjects of quarantine, epidemic, and endemic diseases, unwholesome trades, lunacy, and the provision of suitable aid in sickness for the poorer classes, are successively noticed, and the lamentable neglect of our own Government on these important points of political medicine, is stigmatised in a forcible manner:—

"Unhappily (says Dr. Maunsell) any illustration of the present subject, derivable from the institutions of Great Britain, must be included in a category of negations; thus, except in the instance of the county infirmaries of Ireland, and of sick prisoners in the public jails, the Government in no way interferes with the providing of medical aid for the people. They may have it or not if they please, and how they please—it is a matter with which neither Whig nor Tory concerns himself, further than to take advantage of human weakness, and of the ignorance which both parties have encouraged, for the purpose of wringing from the sufferings of the diseased a few paltry pounds of revenue, by the tax upon patent medicines and stamp upon diplomas. This, in a word, is the amount of Government interference in this important matter. Sixteen or seventeen institutions for granting medical qualifications do, indeed, exist in the empire; but what is their use? Such of them as are honest, and inclined to perform that duty toward the public which the Legislature has neglected, serve but as trammels upon those who place themselves under their regulations. Such individuals, indeed, by their own voluntary act, render themselves liable to punishment for infringement of regulations having for their object the benefit of the human race—*they* cannot advertise the possession of secret remedies, nor publicly traffic in human misery; but in restraining themselves from those sources of profit, they but make way for rival practitioners, encouraged and abetted by the Government. In return for the labour and expense of a prolonged education they receive no protection whatsoever; they have not even a legal scale of charges which they can enforce upon those who employ and are unwilling to remunerate them. If they are required for the public service, the hardest possible bargain is driven with them, and their exertions often obtained for nothing (as under the new English Poor-Law), by a skilful use of the threat of employing their uneducated rivals."

With the above quotation we close our notice of Dr. Maunsell's pamphlet, which we recommend to the attention of all classes of our readers.

BRITISH MEDICAL ASSOCIATION.

Tuesday, March 26th, 1839.

HALF-YEARLY MEETING.

STATE AND PROSPECTS OF THE ASSOCIATION.—ILLEGAL PRACTITIONERS.—STATE OF THE POOR-LAW QUESTION.—THE NATIONAL FACULTY OF MEDICINE.—MEDICAL CORONERS.

THE Association held its half-yearly meeting this evening at Exeter Hall,

Dr. WEBSTER in the Chair.

The PRESIDENT, in addressing the members, stated that the Council had not, on the present occasion, a regular report to offer, such report being only brought forward at the anniversary meeting in September. The members, however, would be gratified to learn that the Association had prospered since the last general meeting. Since September a Branch Association had been formed at Nottingham, and was joined by the most influential members of the profession, and among others the physicians and surgeons to the hospitals and infirmaries in that and the adjoining counties. This branch of the Association had made a noble stand with regard to the Poor-Law question, and had forwarded a report on the subject to the parent Council, pledging themselves not to accept office under the system of tender. The Stroud branch was vigorous in pursuit of such matters as were conducive to the best interests of the profession; they had also forwarded a report to the Council respecting the Poor-Law. To use the language of their President, "the Stroud Association was becoming what he had wished, the members being tinctured with the most

friendly feelings, and assuming that importance and influence which the medical profession ought everywhere to command." Since the anniversary in September the Parent Association had added to their number fifty-one new members; he (Dr. Webster) trusted that every member would endeavour to add to the strength of the Association, as the increasing number would, of course, add to its influence. The masterly oration of Dr. Granville, on medical reform, had been printed by the Council, and might be had by the members at the cost price; it was in all respects worthy the attention of the profession. The Council had been engaged with a mass of correspondence, which was continually kept up, chiefly on the subjects of medical reform and the Poor-Law question; they had had communications on these matters from Edinburgh, Dublin, Glasgow, Newcastle, Leeds, Hull, and other influential places. The great object of the Association had been the forwarding of an efficient medical reform. When it was established in 1836, the corporations were entirely asleep, or apathetic, regarding this important subject; they seemed perfectly satisfied with the condition in which they were placed. Since the foundation of the British Medical Association, however, the various corporate bodies had made such a mighty stir respecting reform, that they bid fair to outstrip the Association, if it were not particularly active in the matter. Thus, printed documents on the subjects of medical reform, or on medical education, had been forwarded to the Council by the Royal College of Surgeons in Ireland; by the University, and the Royal Colleges of Physicians and Surgeons in Edinburgh, by the University of London, by the Glasgow Association, and by the Newcastle Medical Society. Many suggestions and communications from various private individuals had also been sent to the Council; and, not to be singular, the Royal College of Physicians in London had also published a document on medical reform. He remembered the time when the last-named College would admit no gentleman for examination for a license who was not a graduate in medicine; and thirty years since, in addition to a doctor's degree, they passed a law requiring the candidate to have resided two years at an University; and these laws had been acted upon until a very late period. A new light appeared to have dawned upon the Royal College; they now not only examined for a license, but granted a doctor's degree without the above preliminary steps. Perhaps the College were not aware, until lately, that they possessed this power. These movements in the corporate bodies showed that medical reform was necessary, and how advantageous agitation was in propelling the subject forward. The Association had not, however, been behind-hand regarding the important question of reform. The Council had a few months since formed themselves into a committee, and had subsequently appointed a sub-committee to consider the details of a National Faculty of Medicine. From a variety of circumstances, but particularly from the want of the evidence on medical education given before Parliament, the sub-committee had not yet framed a report, although they had held several meetings, and had agreed, he believed, on the heads of a plan which they intended to submit to the Association, reserving until the production of the evidence alluded to, a final settlement. He had lately written to Lord John Russell respecting the evidence in question, and although the evidence was not yet printed, he hoped it soon would be made public. In the question of medical reform for Ireland, the Royal College of Surgeons had taken the lead. Dr. Maunsell, one of the professors in that College, was a corresponding member of the Association, and he, with some of his colleagues, were promoting the welfare of the profession and reform, in a most energetic manner. They had also established a weekly medical journal, an organ much wanted in Ireland, where the beneficial effects of a weekly medical press had not yet been felt. The tone assumed by the new journal, and the ability with which it was conducted, left no doubt of its success. In addition to this, the profession were about establishing an Irish Medical Association, formed on the same principles as the British, and which, if it did not become a part of the latter, would, at all events, work in the same cause. The Poor-Law question had, since the anniversary meeting, assumed a different position. The British Medical Association had last session mainly brought about the appointment of a Parliamentary Committee, the result of whose inquiries was gratifying, except on one point. Most of the evils of the existing system had been examined by the Committee, and reported upon by the chairman to the House of Commons, and many of them were likely to be removed. Unfortunately, however, from want of power or of willingness in the authorities, matters had since remained in *statu quo*; and although there was a tacit understanding that the election of medical officers by tender should be discontinued, he regretted to say, that this disgraceful mode of proceeding had been again, lately, resorted to in several districts. In consequence a deputation from the Association had waited on the Poor-Law Commissioners to inquire why it had been introduced again, in opposition to the recommendation of a Select Committee of the House of Commons; and also, generally, what alterations had been made, or were likely to be made? The deputation was received most courteously; the Commissioners expressed their desire to please all parties, if possible; to render the medical

attendance as efficient as it could be; and, at the same time, to make the arrangements agreeable to the medical men. Regarding the system of tender, they had issued no fresh instructions on the subject; the Guardians acted on their own authority; the Commissioners, however, admitted that the system of tender was offensive to the feelings of the profession. Regarding what had been done, or what was about to be done, the Commissioners had submitted a document, containing a number of queries to the Council, being desirous of receiving a Report, or any suggestions from them in the matter; they had also expressed a wish to see the deputation again; an interview would, accordingly, take place on the following day. The Council had drawn up a plan, which they hoped would be an improvement on all the other modes now in use; but he (Dr. W.) would not enter into details at present, as the result of their interview with the Commissioners, and the plans and Report submitted to them, would soon be laid before the profession.

Another very important subject had come under the consideration of the Council since the last general meeting, and that was the part which the Association had taken in the election of the medical coroner for Middlesex. Feeling that a medical coroner was much more likely to discharge the duties efficiently than a legal one, when the late vacancy occurred, they had no hesitation in calling upon Mr. Wakley to stand forward as a candidate, his great influence with the freeholders, and his capabilities for the situation, rendering him in all respects the most desirable person to contest the election. He need not allude to the triumphant manner in which Mr. Wakley had been returned. The medical profession owed much to Mr. Wakley, and he (Dr. W.) trusted that the profession would evince their sense of his services by contributing to the fund which had been instituted for the purpose of assisting in defraying Mr. Wakley's expenses, and that he would be brought in free of expense to himself. (*Hear, hear.*) Many gentlemen he (Dr. W.) knew would subscribe if asked to do so, and he trusted every member of the Association would use his influence in promoting the growth of the fund. (*Cheers*).

Several subscriptions to the Medical Coroner's Election Fund were now announced, and

Dr. DILLON, of Park-place, Islington, having been proposed and seconded, was elected a member of the Association.

Mr. DAVIDSON now rose to move the first resolution:—

"That Wm. Farr, Esq., be appointed to deliver the oration at the next anniversary of the Association." The mover of the resolution knew no one more likely to do justice to the subject than Mr. Farr, who had been of the greatest benefit to the Association. The resolution, having been seconded by Mr. Harvey, was carried unanimously.

The second resolution was proposed by Mr. R. L. HOOPER, who stated his desire to render the Benevolent Fund at once available for its legitimate purposes, that of relieving the distressed members of the profession. The existing law stated that the fund in question should not be touched until it reached 2000*l*. Now, the Association had been established two years, and that fund had not yet reached 200*l*. If the law remained as it now stood, the members would be grey-headed before the fund could be distributed. Cases were constantly occurring in which 4*l*. or 5*l*. would be the absolute saving of a man. Mr. H. then mentioned a case in proof of his assertion. Feeling how painful it was to be applied to for relief by men whom unforeseen misfortunes had brought to poverty, without the fund being available for the relief of such persons, he would read the resolution:—

"That the law, chap. 10, clause 5, respecting the Benevolent Fund, be rescinded, and that the fund be immediately applied to the relief of distressed members of the profession, at the discretion of the Council."

Mr. C. H. R. HARRISON seconded the resolution, and stated, that as the distribution would be controlled by the Benevolent Fund Committee, there would be no fear of improper objects being relieved, the duty of the Committee in question being to inquire into the cases presented for relief.

Mr. EALES moved, as an amendment, "That under no circumstances shall the Council distribute, in any one year, more than half the amount received during the preceding year, for the purpose of the Benevolent Fund." The original object of the establishment of the fund was, that it should be a growing one, and be set apart for the relief of future distress. The annual income of the fund had not yet exceeded 60*l*., and he thought it advisable to still reserve a portion of it for the purpose of accumulation.

Dr. DONALD M'EWAN seconded the amendment, which, after some observations in opposition from Messrs. Hooper, Howell, Davidson, and Brady, and in support from Mr. James, was carried.

The PRESIDENT, on putting the motion, stated that as some difference of opinion had existed in the Council respecting the original proposition, it was thought best to bring the subject before the general meeting. He considered that the fund might be much augmented by the contributions of benevolent persons, not members of the profession, who justly considering themselves indebted to their medical attendants, would be glad, on the fund being mentioned, of the opportunity of subscribing to it. The fund, he was happy to say, was increasing, and many donations had been made to it.

Dr. A. B. GRANVILLE proposed the third resolution:—

"That the British Medical Association do present petitions to both Houses of Parliament, praying for the immediate adoption of an uniform penny postage throughout the kingdom, payable in advance, as proposed by Rowland Hill, Esq., and recommended by the Report of the Select Committee of the House of Commons."

He said he supposed there would be no opposition to this motion, as all would readily allow that the present very high rate of postage was a great hindrance to free communication between distant members of the profession; that it therefore stood in the way of medical reform, by preventing correspondence on the subject of grievances, and he considered it a very proper matter for the Association to entertain.

The motion was seconded by Mr. EALES, and carried unanimously.

Mr. BRADY moved the fourth resolution, viz.:—

"That this Association, with the view of taking measures for suppressing quackery, and protecting legally-qualified practitioners, invite their own members, and the profession generally, to forward to the Council the names of all persons in their respective neighbourhoods who are practising illegally, or who assume titles to which they have no just pretension."

He said that there was scarcely a medical man in London who had not witnessed cases of chemists, druggists, and unqualified persons taking upon themselves to practise medicine. When called in to see a patient in a very bad state, he had frequently inquired if they not yet had advice. "Oh, yes;" was the reply, "Mr.——(a chemist or druggist in the neighbourhood), has attended me." Illegal practitioners abounded in his neighbourhood. A lady had been attended in her confinement a short time since by one of these persons, and though peritoneal inflammation of the most acute kind had set in, this practitioner had never abstracted an ounce of blood, or used any means to check the disease. The patient was *in articulo mortis*, when he (Mr. B.) was called in to see her.

Mr. WALLACE seconded the resolution.

The PRESIDENT mentioned that one of the members of the Apothecaries' Company had stated before Parliament that, according to the opinion of counsel, the clause in the Apothecaries' Act relating to chemists and druggists practising in their shops, only applied to those in business before August 1815; and that when asked why the Company did not prosecute offenders, he said that "they had not moral courage to do it." Such a lax state of the law required attention. Let the chemists and druggists be prevented from prescribing over the counter, or in any other way, and let medical men be prevented from retailing medicines and interfering with the rights of chemists and druggists.

Mr. ARTHORP said that however strict might be the law, there would be instances in which certain parties would evade it. He should be glad to see the time when medical men could establish themselves without opening shops. Regarding the practice of medicine by chemists and druggists, he knew a case in which a patient nearly lost his life from a sloughing bubo, brought on by improper treatment by a druggist in the Borough.

Mr. JAMES said that in his neighbourhood there were two or three establishments kept by chemists and druggists, who were constantly in the habit of visiting. They took apprentices, who afterwards opened shops, and followed the practice of their masters.

Mr. W. HARVEY said that the most serious inconvenience in his district arose from the unqualified practitioners who called themselves "men-midwives and surgeons." He could easily make a list of these offenders against the laws, and the safety of the people.

Mr. J. F. CLARKE trusted that the Association would not lose sight of those disgraces to the profession, the so-called physicians, who lent themselves out on hire to druggists to assist in defrauding poor patients who came for "gratuitous advice." He had that morning seen an advertisement in the "Times," from a "physician," offering himself for the above service. He trusted that the public would be soon acquainted with the indignation with which the profession viewed the degrading compacts alluded to; and what their opinion was of the "physician" who was so easily purchased for the purposes of fraud.

Mr. BRADY said that a medical man in his neighbourhood had adopted a plan of proceeding which he (Mr. B.) considered disgraceful to a liberal profession. He had two classes of patients who came for advice; to one he charged a shilling a time, to the other sixpence, whatever the nature of the case.

Dr. GRANVILLE related an instance of a "surgeon" who had instituted what he called a "family dispensary," and kept the patients' bodies "in good order" for a small stipend weekly, which was to be paid by them whether they were ill or well.

The PRESIDENT was not surprised at any instances of the kind he heard. He knew a case in which the medical attendant gave his pauper patients nothing but nitre and water; his assistant left him in consequence of the disgraceful proceeding. He (Dr. W.) understood that a person was to be brought into his neighbourhood who was to attend some club patients at three shillings and sixpence per head per annum, as none of the resident medical men would lend them-

selves to so degrading a compact. He blushed for his profession when such men were to be found in it. The resolution to the following effect was then put, and carried unanimously:—"That the members of the Association, and of the profession generally, be invited to communicate to the Secretary, by letter addressed to Exeter-hall, the name and address of any known unqualified person, living in their neighbourhood, who practises under any denomination, or by any mode whatever, those branches of medicine, surgery, or man-midwifery, which the existing laws have hitherto restricted to individuals duly and legally authorised to exercise the same."

Resolved,—"That the preceding resolution be advertised in THE LANCET."

Mr. HARVEY moved, and Mr. JAMES seconded the fifth resolution,—"That the members of the Association, and the profession generally, be invited to forward to the Secretary observations or suggestions on medical reform."

Thanks having been voted to the Chairman, the meeting separated.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 30, 1839.

DR. CHOWNE, President.

DEBATE ON POISONING BY CHARCOAL FUMES.—THE WORTHLESSNESS OF THE BOUGHT CERTIFICATES OF CHEMISTS.

MR. SNOW, in rising to open the adjourned debate on poisoning by carbonic acid, said, that he was now convinced that this gas exercised a deleterious effect independent of the diminution of oxygen consequent on its inhalation. He thought, however, that some of the facts and arguments brought forward in support of that opinion were objectionable. For instance, in the experiment of Collard de Martigny, who descended into a brewer's vat, the air was respired through a long tube; he would, therefore, at each inspiration draw back a great part of the air he had already expired, which alone would account for all the alarming symptoms he experienced. The absolute death of animals from the influence of carbonic acid, was no proof of its poisonous effects; for Dr. Edwards had stated that he never knew an adult animal recover, after it had been detained under water till all external motion had ceased. The illness following exposure to carbonic acid was no proof of its poisonous quality, for wherever apoplexy was induced, illness must follow. Mr. Snow had performed some experiments in which he had tried to avoid the usual sources of error. He procured a very large bottle, containing 2000 cubic inches; this he filled with 75 parts of atmospheric air, 20 parts of carbonic acid gas, and 5 parts of oxygen. So that with 20 per cent. of carbonic acid gas, the natural proportion of oxygen was preserved. Two small birds were introduced; they began to breathe laboriously, and in a few minutes were withdrawn, but died shortly afterwards. A white mouse died in an hour and a half, after breathing laboriously. The same bottle was then filled with 85 parts of atmospheric air, 12 of carbonic acid, and 3 of oxygen. Here, then, there were 12 parts of carbonic acid, while the natural quantity of oxygen was preserved: a sparrow was put into this mixture; it shortly began to breathe in a very deep and laborious manner, and to open its bill in inspiration. It died after a period exceeding two hours and a half. A white mouse was afterwards put into the same mixture; it began to breathe with difficulty; in ten hours it breathed seldom and irregularly, and in fourteen hours was taken out in a very feeble state, but recovered. From these experiments it was evident that carbonic acid produced fatal effects independent of any diminution in the quantity of oxygen. He had performed some experiments to determine the effects of diminishing the natural quantity of oxygen in the air, when no carbonic acid was present. Into the same large bottle, filled with atmospheric air, he introduced five per cent. of nitric oxide gas; this, of course, combined with its own bulk of oxygen, forming nitrous acid, which was entirely absorbed by water, and thus an artificial atmosphere was produced, containing but 16 per cent. of oxygen, instead of 21, the remainder being nitrogen. Into this a sparrow was put, and lime-water was kept in agitation in the bottle to absorb the small quantity of carbonic acid coming from the lungs of the bird as it was formed. The sparrow died in six hours; its blood was fluid, and that in its lungs was of a florid hue. Another sparrow was taken out at the end of half an hour uninjured. Here, then, was a diminution of oxygen, which, though it produced no unpleasant symptoms at first, yet was fatal after a while. This fact was important, as it was a circumstance that had been considered peculiar to carbonic acid, and a proof of its poisonous nature. In another experiment, eight per cent. of oxygen were abstracted by the same means. A sparrow was put in; in thirty-five minutes it opened its bill and began to be convulsed; it was taken out, but never completely recovered, and died during the following night. The lungs were soft and dark-coloured, and gorged with dark fluid blood. Here, then, was a case of illness caused by a diminution of oxygen, where no carbonic acid was present. A white mouse put into this same atmosphere, at the end of five hours and three-quarters, breathed very deep, and only one-tenth as often as natural; it was taken

out, and ultimately recovered. In another experiment a green linnet died in ten minutes, where only seven per cent. of oxygen were abstracted. He had found that when carbonic acid gas and a diminution of oxygen had existed together, the effects were more fatal than from the presence of either of the causes separately; and from the combustion of charcoal this combination existed in an eminent degree, the abstraction of oxygen being exactly equal to the quantity of carbonic acid present. He related several experiments in illustration of this fact. In one a brown linnet died in two hours and a half, when three per cent. of oxygen were replaced by the same quantity of carbonic acid; in another experiment a white mouse, placed in the same circumstances, was on the point of death in four hours. Carbonic acid, though it certainly caused death, did not agree exactly with the idea we entertained of a poison. During the experiments related the animals always perfectly recovered from its influence provided the powers of life were not already too much reduced by the exposure to it. From narrowly watching the animals during the experiments it had appeared to him that carbonic acid acted as a stimulant to the lungs, and excited the act of respiration to an enormous extent. He agreed with Dr. M. Hall that the natural effect of the carbonic acid gas given off from the blood, was to excite, through the nervous system, a fresh act of inspiration, and believed that when the quantity in the lungs was much increased by drawing it from the atmosphere, respiration became increased to an injurious and even fatal extent. Carbonic acid was never absorbed into the blood; on the contrary, we knew from the experiments of Allen and Pepys, that it continued to be given off, however great the quantity in the air respired. But we knew also, from the experiments of the same physiologists, that when the respiration was much distressed oxygen was absorbed by the blood, over and above the quantity of carbonic acid given off. This fact would explain the florid colour of the blood in the lungs of one of the sparrows he had experimented on, and also its arterial hue in a number of recorded cases of poisoning by this agent. Although he had been unable to detect any lesions in the brains of animals he had experimented upon, he did not dispute the well authenticated fact that human beings, placed in the same circumstances, died from apoplexy. He thought, however, that the cerebral symptoms were not primary, and that the respiration must be first affected. The important point in toxicology was the extent of deterioration of the atmosphere by the combustion of charcoal which would be sufficient to produce fatal effects in man. One thing was evident from the experiments related, namely, that birds were uniformly more affected than mice, and there were many circumstances which proved that man was very readily affected by this deterioration. It was well known that one mode of committing suicide was for a person to shut himself up in a close room with a charcoal-chauffer. Now, the quantity of caloric that burning charcoal gave off was as accurately ascertained as the quantity of carbonic acid, and also the number of degrees to which that caloric would heat a given quantity of air. By making a calculation, which any member might make for himself, he had found that, with ample allowance for heating the walls of the apartment, if it required any such quantity as ten per cent. of carbonic acid to cause death, a person would be roasted long before he would be asphyxiated by these means. Another circumstance that proved in a striking manner the small quantity of carbonic acid that might produce the fatal effect, was the fact of persons having been found dead from the combustion of charcoal, whilst a candle continued to burn in the room; for, by a number of very careful experiments, he had found that candles invariably went out whenever three or four per cent. of carbonic acid gas replaced so much oxygen, *i. e.*, before the oxygen in the air was reduced to 17 per cent. He was aware that, according to reports in the journals, a certain lecturer on chemistry had asserted in evidence at a late inquest, that he had frequently detected four per cent. of carbonic acid in the theatres in this metropolis. He (Mr. Snow) did not hesitate to say that this assertion was founded in error, for the carbonic acid gas in this case being produced by respiration, and the combustion of lights, would be at the expense of the oxygen, and before there could be this quantity both candles and gas-lights would go out, and the theatre be left in darkness.

Dr. A. T. Thomson believed that carbonic acid, when it passed the glottis, acted decidedly as a sedative poison. He had filled two bottles of equal size, one with carbonic acid, the other with nitrogen. He held one of his hands, which had been burned, in the nitrogen for several minutes, without the slightest alleviation to his suffering. Immediately, however, on placing it in the carbonic acid the pain ceased. The only difference in the mode of placing the hand in these vessels was from the different gravity of the gases; in the nitrogen he held his hand up, in the carbonic acid downwards; the first, had the gas possessed any influence, would have been a more likely position to relieve pain.

Mr. Streeter was glad to find that no medical man had yet been hardy enough to assert, that a charcoal stove of any kind, without a chimney, to carry off the products of combustion, was safe in any apartment. A question had been put to him on this point by a very old patient, respecting the

new stoves, and it required the influence of many years attendance in that family to overcome the effect of the certificates of character given in favour of these stoves by certain chemists of this metropolis. With a chimney, for aught he (Mr. S.) knew, they might be as safe as any other. He was sorry to see that the opinions of chemists founded, as they must be, on less certain grounds, were to take the place, or overrule the experience of physiologists; it had been proved that the inhalation of carbonic acid in however minute a quantity, was injurious; we needed not certificates on the subject. He placed little confidence in such certificates. Chemists had detected no difference between the atmosphere of the country and that of crowded assemblies and theatres. Who did not know the advantage of pure air over that of such assemblies. The same gentleman, too, had certified that he found no difference between English and French brandy! Certificates emanating from such authority were worthless.

Dr. Golding Bird made some observations on the closing of the debate,—they referred almost entirely to the experiments of Mr. Snow, with which he did not disagree in the main. Regarding the observation of Dr. Edwards, as to the non-recovery of animals from asphyxia, he (Dr. Bird) had found that they frequently recovered after they had been kept in hydrogen or nitrogen until they were apparently dead. The objection to the poisonous power of carbonic acid was one founded more on words than on facts. It was quite evident that a charcoal stove, under no circumstances, nor in any apartment, could be burnt with safety, unless it had a chimney attached to it.

INQUESTS IN MIDDLESEX.

MEDICAL JURISPRUDENCE.

POST-MORTEM EXAMINATION OF A MALE CHILD FOUND DEAD IN BEDFORD-SQUARE, MARCH 3, 1839.

The following account of a post-mortem examination, which was made by Drs. Reed and Guy, in conformity with an order of the Medical Coroner for the county of Middlesex, was given in evidence at an inquest that was held in the parish of St. Giles's, Bloomsbury, on March 7, 1839:—

External Appearances.

The body well formed, and of healthy appearance, presenting no signs of putrefaction; *skin* florid, particularly about the head and face; no apparent marks of *external injury*, nor of *hæmorrhage*; no froth or mucus found in the mouth, even after pressing the chest.

Navel chord 8½ inches long, and has been divided apparently by some sharp instrument, untied, but evidently not done by a professional attendant. There is no change yet taken place either in the navel itself, or in the chord near it.

The *umbilicus*, or *navel*, is situated 10½ inches from the top of the head, and 9½ from the heel, being therefore nearly central, the *length* of the child being 20 inches.

The *weight of the child* is 5lbs. 11 oz. avoirdupoise.

The *hair* of the head is fully an inch in length, and not woolly; there is hair on different parts of the body, which is likewise not woolly.

The *bones of the head* are firm, and not easily separable. The posterior fontanelle is nearly closed, the anterior open, and about two inches long. On opening the eyelids the cornea is rather dull, but the pupils are well defined, there being no membrana pupillaris.

The *nails* of the *fingers* are fully developed, and extend beyond the ends of the fingers; those of the toes are not so fully developed.

The *breadth of the shoulders* is greater than the longest diameter of the head, being 5½ inches. The occipito-frontal diameter is only 4¾ inches, or 5 at the most.

The *testicles* have descended into the scrotum, the latter not being of so red a colour as it is at an earlier period. No sign of *meconium* about the child's fundament.

Internal Appearances.

The *lungs* are small, and not apparently occupying the whole cavity of the chest; the heart is uncovered by them; the edges of the different lobes of the lungs are of a sharply-defined character, and the upper lobe of the left lung is found to present a *mottled* appearance *immediately* on exposure; this appearance extended to the *other* lobes after exposure to the air for some time.

The different *veins* are full of fluid blood.

Lungs removed from the chest.—The greater portion of the lungs presents the usual *fœtal* appearance, or that existing before birth, being of a dark liver colour. After a few minutes exposure to the effects of the air, as I before observed, there were seen numerous mottled irregular spots of bright red over the greater portion of the lobes, especially on their edges; but the upper lobe of the left lung presents this appearance to the greatest extent.

In the different lobes, especially in the under surface of the upper lobe of the left lung, not only was there a change of colour, but the lobules, of a bright-red colour, were distinctly subdivided into lobulettes, or smaller lobules. The sharp edges of the lobes were of a bright hue likewise. Crepitus in all parts of the lungs.

Weight of the lungs 726 grains, that of whole body 39,812 grs. troy. Proportion, then, of lungs in weight to that of body, as 1 to 55. Weight of right lung, 392 grs.; weight of left, 334 grs.

Hydrostatic test.—The right lung floats perfectly in water; the left the same. Either lobe separately, of each lung, floats as perfectly. The *left* lung, being divided into nine portions, each floated. The same result from dividing the *right* lung into twelve portions. On making *sections* through the lungs dark blood and frothy mucus issued freely.

On taking *each* lobe separately, putting it into a clean cloth, and using the utmost pressure, by two persons, in squeezing it to the utmost extent, by twisting the ends of the cloth, blood was forced out, mixed with frothy mucus, and yet after this the lobe still floated. No pressure of the lungs under the *greatest* weight (although by this process their texture was injured), could make them sink, with the exception of one very small portion.

On opening the *stomach* it was found to contain only some thick ropy mucus, of a slightly yellow tint.

The *large intestine* was fully distended by meconium, and presented a dark olive-green appearance.

The *bladder* contained urine.

The umbilical vein, the ductus venosus, and the umbilical arteries, were quite pervious, and the two former distended with blood.

The *ductus arteriosus* and *foramen ovale* in the heart are fully open. No mucus or froth in the passages of the *throat*.

The *spine* is not injured, and on opening its canal no particular appearances are found to exist.

Head.—On dissecting back the scalp its blood-vessels are found fully distended; there is a thick fluid at the posterior part, between it and the bones.

On examining the *brain*, which is of a soft, pulpy consistence, there is great congestion of that part. The veins are greatly distended, and dark points are visible at every portion of it, on cutting through them. The sinuses and plexus choroides are much distended. There is no effusion of blood.

The result of this minute examination of the body would lead us to judge,—

1. That the child had arrived at the full period.

2. That it had breathed but for a short time.

3. That it had received no medical assistance.

4. That it had not died from bleeding, or from exposure to cold.

5. That no violence had been the cause of death.

6. That from all the appearances it *might* have died after the partial birth of the *head*, or that it may have died from suffocation immediately after its total expulsion from the mother, probably from want of proper assistance.

THE REV. MR. STEGGALL.—Legs, to use an Exchange phrase, are up. Some time ago Mr. John Ward, of Bridgwater, had to pay five pounds for one. A few days since the Rev. Mr. Steggall was mulcted in the sum of *ten* pounds for an *infant* leg which was lost, in spite of his assiduous and scientific medical care. We hope that some of our correspondents in the neighbourhood will favour us with an account of the trial, a very imperfect report of which we have just seen in a morning paper.

APOTHECARIES' HALL.

LIST of gentlemen who have received certificates:—

Thursday, March 7.—Charles Braddon, Crediton; Thomas Benjamin, Appleton; D. Dugdale, Blackburn; Hugh Meller, Sheffield; Sprot Boyd, Edinburgh.

Thursday, March 14.—Edward Edmunds, Worthing, Sussex; John George Brighton, Ombersley.

Thursday, March 21.—John Broadhurst, Manchester; Walter Augustus Lewis, 18, Stratford-place, London; Edward Overbury, Cheltenham; Nathaniel Edward Parker, Lavington, Wilts; William Ryan, Birmingham; Charles Henry Edgell Skinner, Bermuda.

WORKS RECEIVED.

On Sickness and Mortality in the West Indies; being a Review of Captain Tulloch's Statistical Report. By Sir Andrew Halliday, M.D. Parker, London, 1839. pp. 63.

Illustrations of Operative Surgery. Amputations, No. III. Tipper and Co., Dublin, 1839.

The Surgical Anatomy of the Arteries and Descriptive Anatomy of the Heart, &c. By Valentine Flood, M.D. Highley, London, 1839. 8vo. pp. 237.

Practical Observations on Diseases of Women. By William Jones, &c. Bailliere, London, 1839. 8vo. pp. 226.

Practical Observations on Chronic Enlargement of the Prostate Gland. By F. B. Courtenay. Hill, London, 1839. 8vo. pp. 170.

TO CORRESPONDENTS.

A.B. Yes; the "Phenomenon" has been appointed *inspector* of prostitutes, and "clean bills of health" may be obtained either at Charlotte-street, Bloomsbury, or at the seminary, Hammersmith.

Received, the communications of *Dr. May, Mr. Gray, Mr. Denton, Mr. Barker, Mr. C. Edwards, Mr. Verity, Mr. Dewhurst*, and *J. T.*